



TENTH ANNUAL REPORT

OF THE

Department of

Mines and Minerals

OF THE

PROVINCE OF ALBERTA

FOR THE

Fiscal Year Ended March 31st

1959

EDMONTON:
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1959

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To the Honourable J. J. Bowlen,

Lieutenant Governor of the Province of Alberta.

SIR:

I have the honour to submit the Report of the Department of Mines and Minerals for the fiscal year ended March 31st, 1959.

I have the honour to be, Sir,

Your obedient servant,

ERNEST C. MANNING,

Minister of Mines and Minerals.

Edmonton, November 2nd, 1959.

DEPARTMENT OF MINES AND MINERAL RESOURCES
MARCH 1944

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CHIEF OFFICERS
DEPARTMENT OF MINES AND MINERALS
MARCH 31st, 1959

Hon. Ernest C. Manning *Minister*
H. H. Somerville *Deputy Minister*
J. B. Corbet *Solicitor*
C. W. Jackman *Statistician*
W. E. Shillabeer *Administrative Accountant and
Personnel Officer*

MINERAL RIGHTS DIVISION

J. W. Patrick *Director*
R. A. Seaton *Assistant Director*
D. R. Jordan *Supervisor of Revenue*
D. F. Morrison *Supervisor of Leases and Mining
Recorder, Edmonton District*
D. C. MacMillan *Mining Recorder, Calgary
District*

MINERAL TAX DIVISION

V. L. Scott *Superintendent*
J. A. Savage *Assistant Superintendent*

MINES DIVISION

J. A. Dutton *Director*
J. Horne *Assistant Director*

PIPE LINE DIVISION

W. Rutherford *Superintendent*

TECHNICAL DIVISION

J. M. Novak *Superintendent*
E. G. Staniforth *Assistant Superintendent*

Tenth Annual Report

of the

Department of Mines and Minerals

HONOURABLE ERNEST C. MANNING,
Minister of Mines and Minerals,
Edmonton, Alberta.

SIR:

I have the honour to present the Annual Report of the Department of Mines and Minerals for the fiscal year ending March 31, 1959.

The decline in crude oil production which began early in 1957 continued through 1958. The market for Alberta crude in the Pacific Northwest was temporarily lost and oil produced in Saskatchewan displaced some Alberta crude in the eastern market areas. Completion of the natural gas pipe line to Montreal in October, 1958, provided the first market for natural gas from the Pincher Creek field which had been discovered ten years earlier.

Gas export from the Medicine Hat field to a market in Saskatchewan started in September, 1958. The permit specifies that the gas shall come from that portion of the field lying within ranges 1, 2 and 3, west of the 4th meridian.

The second stage of the Pincher Creek gas processing plant was completed in October, 1958, with a capacity of 142 million cubic feet of gas per day of which 100 million cubic feet per day are delivered to Alberta Gas Trunk Line. Other products per day are 4,200 barrels of condensate, 20,000 gallons of propane, 30,000 gallons of butane, and 500 long tons of sulphur.

Other plants completed to process gas for eastern consumers include two in the Cessford field and two at Princess. In addition to residue gas for market, each of these plants produces a small quantity of natural gasoline or condensate.

The gas gathering system in the main portion of the Pembina field was completed and commenced operation late in 1958. It consists of eight compressor stations which remove the natural gasoline and liquid petroleum gas. The liquid petroleum gas is piped from the compressor stations to a fractionating plant where propane and butane are recovered. The dry gas is purchased by Northwestern Utilities Limited.

Footage drilled in the calendar year, 1958, increased to 9,116,712 feet from 7,472,525 feet in 1957. Development drilling accounted for all this increase. Part of the development took place in gas fields where full development has been delayed pending the provision of a gas market.

Oil fields under active development included the heavy and medium gravity areas of Wainwright, Bellshill Lake and Thompson Lake in east-central Alberta and the light fields of Innisfail, Swan Hills, Kaybob, Keystone and Pembina. Large reserves have been proved in the Swan Hills area. A string of oil discoveries now stretches from township 69, six miles north of the main field to township 61, twelve miles north of Whitecourt. Although all the oil wells in this area produce from the Beaverhill Lake formation, there may be a number of separate reservoirs involved. Other oil discoveries include one at Simonette River and one at Eaglesham.

New discoveries and extensions to previously known pools added substantially to our proven reserves of natural gas.

A substantial gas field has been discovered in the Carstairs area. The gas will require processing, but is favourably located for both local and export markets. A discovery in the Wildcat Hills area contains gas similar to that of the Jumping Pound field. The gas discovery at Berland River was brought to the public attention, because its calculated open flow potential of 1.5 billion cubic feet per day is the largest ever reported. This well is located about seventy miles west of Whitecourt. The reserves of the Waterton field were substantially increased by the discovery of a second pay zone in the northern part of the field. A discovery of large gas reserves has been made in the Carson Creek area north-east of Whitecourt. A discovery near Lac la Biche is of local importance as a source of gas for a utility system to serve the community.

Other mineral development during the year included the construction of a bentonite processing plant at Rosalind, twenty miles south-east of Camrose. Bentonite is quarried near the plant and barite is brought from British Columbia. The prepared product is used principally to control the viscosity of drilling mud. It is also used as a binder for foundry sand moulds. Experiments are being made to determine its usefulness in controlling forest fires.

Amendments to three statutes administered by this Department were passed at the 1959 Session of the Legislature.

There is one amendment to the Mines and Minerals Act. The single form previously prescribed for transfers of leases, permits, reservations and other agreements has been replaced by three new forms to simplify the preparation of transfers.

Some changes were made in the Oil and Gas Conservation Act. Section 20a was added to the Act and requires the operator applying to drill a well for a purpose other than oil or gas production, gas, air, or water injection, or geological information, to provide the Board with information about the location, depth and purpose of the well.

The minimum deposit of the licensee of more than one well is increased from \$3,500.00 to \$5,000.00 and has a maximum of \$10,000.00 for seven or more wells. The Lieutenant Governor in

Council may, by regulation, specify that all or parts of the deposits may be in the form of bonds or other securities.

A change in section 35 empowers the Board to decide a dispute concerning a pool or zone designation.

Changes in the section dealing with the unit operation of tracts within a spacing unit provide, where an owner fails to pay his share of costs in connection with the drilling of a well by the time specified in the order, his share of the costs together with a penalty not exceeding 50% may be recovered from such owner's share of production. The penalty for not paying by the time specified does not apply if the owner is missing and untraceable.

A few minor amendments were made to the Pipe Line Act. One allows the applicant for a permit to negotiate for land for the line prior to the granting of a permit. Another amendment specifies the steps to be taken before a pipe line authorized to transmit one substance, may be permitted to transmit a different substance. An addition to section 30 requires that damage to public or private property shall be repaired immediately, unless other arrangements are made with the owner.

A separate report is issued yearly by the Mines Division and may be obtained from the Mines Division of this Department in the Natural Resources Building, Edmonton, Alberta.

Detailed reports of the other divisions follow.

All of which is respectfully submitted.

H. H. SOMERVILLE,
Deputy Minister.

November 2, 1959.

Mineral Rights Division

Report of the Director of Mineral Rights

J. W. PATRICK

The tenth year of administration by the Department of Mines and Minerals was one of continued progress.

Footage drilled for petroleum and natural gas during 1958 was 9,116,712 feet. This was an increase of 1,644,187 feet from 1957. The production of crude oil decreased to 113,277,847 barrels being a reduction of 24,214,469 barrels from 1957. The number of producing wells increased from 8,015 to 8,550 and were capable of maintaining an average daily rate of production of 797,000 barrels at December 31, 1958, under good production practice in accordance with sound engineering and economic principles. Because of inadequate markets the average daily oil produced during the year was only 310,350 barrels, a decrease of eighteen percent from the previous year. There were 1,726 licenses issued to drill for oil or gas during 1958 compared with 1,490 licenses during the previous year.

Production of coal in Alberta in 1958 decreased by 635,415 tons. This decline in coal production is again chiefly attributable to the loss of markets by the increase in the use of alternate fuels.

The production and value of Alberta's chief minerals for 1958 were crude oil, 113,277,847 barrels valued at \$284,368,075.00; coal, 2,519,939 tons valued at \$12,778,111.00; natural gas,* 206,308,668 Mcf., valued at \$16,504,693.00; and salt, 37,319 tons valued at \$1,406,736.00.

Mineral rights, solid, liquid and gaseous, the property of the Crown in right of the Province, are not sold, but are disposed of by lease, reservation, license, permit or other agreement for limited periods of time. Revenue is obtained from fees, rentals, bonuses, royalties, sales of leases and other miscellaneous charges. During the fiscal year these sources provided a revenue of \$109,619,225.81 being a decrease of \$13,815,714.00 from the previous year. Sales of leases and reservations in Crown Reserves were held on four occasions in the fiscal year and the revenue from this source decreased six million dollars.

The Province is divided into two mining districts; the Edmonton district comprises that portion of the Province lying to the north of the north boundary of Township 42 and the balance of the Province lying to the south is contained in the Calgary district.

During the year 5,066 applications for mineral rights were filed at the office of the Mining Recorders in Edmonton and Calgary and at the office of the Department in Edmonton. Many inquiries were made as to the availability of mineral rights

*Includes only marketed and consumed gas.

mostly for petroleum and natural gas leases and reservations by personal application and by correspondence.

A tabulation of leases together with statements of business transacted follow.

MINERAL RIGHTS LEASES

Type of Lease	Active at April 1, 1958	Issued	Reinstated	Divided	Cancelled	Renewed	Active at March 31, 1959
Petroleum and Natural Gas	27,699	3,119	66	255	1,924	7	29,208
Natural Gas	314	51	....	28	1	....	392
Petroleum	2	....	....	....	....	....	2
Coal	498	22	1	....	38	1	482
Road Allowance Coal	144	2	....	....	2	....	144
Quarrying	56	12	....	....	3	....	65
Salt	2	....	....	....	....	....	2
Bituminous Sands	12	5	....	....	....	....	17
Iron .....	....	2	....	....	....	....	2
Miscellaneous	4	1	....	....	....	....	5
TOTAL	28,731	3,214	67	283	1,968	8	30,319

ACREAGE CONTAINED IN ABOVE LEASES

Type of Lease	Active at April 1, 1958	Issued	Reinstated	Cancelled	Renewed	Active at March 31, 1959
Petroleum and						
Natural Gas	23,171,785	4,348,804	41,052	2,315,874	917	25,244,850
Natural Gas	1,561,728	338,882	....	136,887	....	1,763,723
Petroleum	25,272	....	....	....	....	25,272
Coal	151,447	3,427	170	7,509	40	147,495
Quarrying	8,954	4,436	....	711	....	12,679
Salt	1,204	....	....	....	....	1,204
Bituminous Sands	100,099	137,997	....	....	....	238,096
Iron .....	....	442	....	....	....	442
Miscellaneous	3,614	126	....	....	....	3,740
TOTAL	25,024,103	4,834,114	41,222	2,460,981	957	27,437,501

STATEMENT OF BUSINESS TRANSACTED, 1958-1959

PETROLEUM AND NATURAL GAS

	Number	Acres
Leases issued	3,119	4,348,804
Leases cancelled and relinquished	1,924	2,315,874
Leases reinstated	66	41,052
Prospecting reservations granted	219	10,270,667
Prospecting reservations terminated	343	19,464,763
Crown reserve drilling reservations granted	135	1,010,427
Crown reserve drilling reservations terminated	130	944,307
Natural gas licences issued	29	460,811
Natural gas licences terminated	22	368,958
Crown reserve natural gas licences issued	10	235,486
Crown reserve natural gas licences terminated	9	209,729
Natural gas leases issued	51	338,882
Natural gas leases cancelled and relinquished	1	136,887
Fees, rentals, penalties and bonuses collected		\$ 29,833,947.04
Royalties collected		25,446,505.77
Crown reserve sales		53,609,952.46
TOTAL		\$108,890,405.27

COAL

	Number	Acres
Leases issued	22	3,427
Leases cancelled and relinquished	38	7,509
Leases reinstated	1	170
Road Allowance Leases—		
Leases issued	2	
Leases cancelled and relinquished	2	
Fees and rentals collected		\$ 60,650.61
Royalties collected		99,675.81
TOTAL		<u>\$160,326.42</u>

QUARRYING

	Number	Acres
Quarrying leases issued	12	4,436
Quarrying leases cancelled and relinquished	3	711
Fees and rentals collected		\$ 115.00
Royalties collected		50,730.87
TOTAL		<u>\$ 50,845.87</u>

MISCELLANEOUS

	Number
Bituminous sands leases issued	5
Bituminous sands permits issued	16
Bituminous sands permits terminated	10
Quartz—	
Claims recorded	324
Certificate of Work issued	71
Powers of Attorney filed	8
Transfers recorded	17
Placer—	
Claims recorded	28
Renewals issued	41
Powers of Attorney filed	16
Transfers recorded	21
Iron prospecting permits terminated	2
Iron leases issued	2
Special Mineral leases issued	1
Sodium sulphate prospecting permits issued	1
Mineral sales	10
Well licences issued	1,772
Geophysical licences issued	146
Permits to operate geophysical equipment issued	8
Permits to operate geophysical equipment renewed	67
Fees, rentals, royalties and miscellaneous charges	\$517,648.25

PETROLEUM AND NATURAL GAS

Leases—During the year 3,119 petroleum and natural gas leases were granted covering 4,348,804 acres and at the close of the fiscal year a total of 29,208 leases were in existence comprising an area of 25,244,850 acres.

The revenue received from fees amounted to \$34,925.18. The revenue from lease rentals was \$22,481,583.18 and the revenue from bonuses accepted by the Mining Recorders at sales of petroleum and natural gas leases by tender amounted to \$285,934.53. The revenue from penalties for deferment of drilling on petroleum and natural gas leases amounted to \$27,200.00.

Disposal of Crown Reserves—Petroleum and natural gas rights comprised in Crown reserves may be disposed of by order of the Lieutenant Governor in Council and during the year 227 leases, thirteen reservations, 135 Crown reserve drilling reservations and ten Crown reserve natural gas licenses were purchased and particulars of these Crown reserve purchases are included in this report. Particulars of Crown reserve fractional area leases

purchased and Crown reserve natural gas leases purchased pursuant to Sections 280 and 282 of The Mines and Minerals Act are also included.

CROWN RESERVES PURCHASED IN GILBY AREA

Description		Offer Accepted From:	Cash Purchase Price
W. ½	36-40- 3-5	Fargo Oils Ltd. and General American Oils, Ltd.	\$ 64,000.00
W. ½	1-41- 3-5	Canadian Homestead Oils Ltd.	72,650.00
			<hr/>
			\$ 136,650.00

CROWN RESERVES PURCHASED IN GLEN PARK AREA

Description		Offer Accepted From:	Cash Purchase Price
S.E. ¼	34-48-27-4	West Canadian Oil & Gas Limited and Perno Gas & Oil Limited	\$ 21,000.00
S.W. ¼	34-48-27-4	Western Decalta Petroleum Limited, Cree Oil of Canada Limited, Sohio Petroleum Company and Fargo Oils Ltd.	7,500.00
			<hr/>
			\$ 28,500.00

CROWN RESERVES PURCHASED IN HOMEGLEN-RIMBEY AREA

Description		Offer Accepted From:	Cash Purchase Price
E. ½	6-44- 1-5	Western Decalta Petroleum Limited, Dome Petroleum Limited, West Canadian Oil & Gas Limited and Consolidated East Crest Oil Company Limited	\$ 35,600.00
W. ½	6-44- 1-5	Western Decalta Petroleum Limited, Dome Petroleum Limited, West Canadian Oil & Gas Limited and Consolidated East Crest Oil Company Limited	5,000.00
W. ½	2-43- 2-5	Cree Oil of Canada Limited	3,521.00
			<hr/>
			\$ 44,121.00

CROWN RESERVES PURCHASED IN JOARCAM AREA

Description		Offer Accepted From:	Cash Purchase Price
N.E. ¼ and L.S.'s 1, 8, 13 and 14 of	1-50-22-4	Canadian Homestead Oils Limited	\$ 75,500.00
			<hr/>
			\$ 75,500.00

CROWN RESERVES PURCHASED IN JOFFRE AREA

Description		Offer Accepted From:	Cash Purchase Price
W. ½	18-39-26-4	Consolidated Mic Mac Oils Ltd.	\$ 66,666.66
N. ½	2-38-25-4	South Edmonton Scrap Metal & Supply Ltd.	17,102.50
S.E. ¼	12-38-25-4	Columbus Minerals Ltd.	6,800.00
E. ½	22-39-26-4	Skelly Oil Company	195,878.40
N.E. ¼	26-39-26-4	Western Decalta Petroleum Limited	20,680.00
S. ½	24-39-27-4	Bailey Selburn Oil & Gas Ltd. and Anderson-Prichard Oil Corporation	86,766.00
			<hr/>
			\$ 393,893.56

CROWN RESERVES PURCHASED IN KAYBOB AREA

Description		Offer Accepted From:	Cash Purchase Price
E. ½	5-64-19-5	The California Standard Company, The British American Oil Company Limited and Phillips Petroleum Company	\$ 80,555.55
E. ½	8-64-19-5	The California Standard Company, The British American Oil Company Limited and Phillips Petroleum Company	130,777.77
E. ½	17-64-19-5	The California Standard Company, The British American Oil Company Limited and Phillips Petroleum Company	215,999.99
E. ½	2-64-19-5	Pacific Petroleums Ltd.	100,333.33
E. ½	11-64-19-5	The California Standard Company, The British American Oil Company Limited and Phillips Petroleum Company	75,075.00
E. ½	14-64-19-5	The California Standard Company, The British American Oil Company Limited and Phillips Petroleum Company	75,075.00

CROWN RESERVES PURCHASED IN KAYBOB AREA (Continued)

Description	Offer Accepted From:	Cash Purchase Price
E. ½ 23-64-19-5	The California Standard Company, The British American Oil Company Limited and Phillips Petroleum Company	50,051.00
W. ½ 5-64-19-5	The California Standard Company, The British American Oil Company Limited and Phillips Petroleum Company	85,869.18
W. ½ 8-64-19-5	Amerada Petroleum Corporation	71,115.00
W. ½ 17-64-19-5	McColl-Frontenac Oil Company Limited	172,000.00
Sec. 20-64-19-5	The Ohio Oil Co.	676,111.00
		<hr/> \$ 1,732,962.82

CROWN RESERVES PURCHASED IN KEYSTONE AREA

Description	Offer Accepted From:	Cash Purchase Price
N.W. ¼ 9-48- 4-5	Columbus Minerals Ltd.	\$ 12,330.00
N.W. ¼ 10-48- 4-5	Carson Holdings Ltd.	17,130.00
S.E. ¼ 14-48- 4-5	Canada-Cities Service Petroleum Corporation	41,120.00
N.E. ¼ 17-48- 4-5	Carson Holdings Ltd.	25,030.00
S. ½ 10-49- 5-5	Northern Natural Gas Producing Company	138,801.00
S. ½ 11-49- 5-5	Northern Natural Gas Producing Company	138,447.00
N.E. ¼ 12-49- 5-5	Northern Natural Gas Producing Company	68,163.00
E. ½ 13-49- 5-5	Northern Natural Gas Producing Company	91,007.00
W. ½ 11-48- 4-5	Sheldon Petroleum Ltd.	6,096.05
S.E. ¼ 4-49- 4-5	Canada-Cities Service Petroleum Corporation	46,303.00
S.E. ¼ 16-49- 4-5	Canada-Cities Service Petroleum Corporation	56,465.00
S.E. ¼ 20-49- 4-5	Canada-Cities Service Petroleum Corporation	51,115.00
N.W. ¼ and S.E. ¼ 22-49- 4-5	Northern Natural Gas Producing Company	16,492.80
S. ½ 28-49- 4-5	Northern Natural Gas Producing Company	16,389.72
S. ½ 30-49- 4-5	Canada-Cities Service Petroleum Corporation	42,513.00
E. ½ 25-48- 5-5	Fort St. John Petroleum Ltd. (Non-Personal Liability), Trinidad Central Oilfields, Limited, Westburne Oil Development Limited and Whitehall Canadian Oils Ltd.	20,200.00
Sec. 9-49- 5-5	William Minto Mackay	202,222.22
E. ½ 24-49- 5-5	Western Decalta Petroleum Limited	51,372.00
E. ½ 25-49- 5-5	Canada-Cities Service Petroleum Corporation	43,017.60
		<hr/> \$ 1,084,214.39

CROWN RESERVES PURCHASED IN PEMBINA AREA

Description	Offer Accepted From:	Cash Purchase Price
Sec. 16 and E. ½ 17-47- 9-5	Plymouth Oil Company	\$ 145,989.00
E. ½ 20 and W. ½ 21-47- 9-5	Plymouth Oil Company	97,357.00
W. ½ 28 and Sec. 29-47- 9-5	Plymouth Oil Company	97,357.00
Sec. 30-47- 9-5	Plymouth Oil Company	65,357.00
Sec. 25-47-10-5	Sinclair Canada Oil Company	107,531.00
Sec. 26 and E. ½ 27-47-10-5	Humber Oils Limited	62,000.00
N. ½ & S.E. ¼ 34 & W. ½ 35-47-10-5	Pan American Petroleum Corporation and Hudson's Bay Oil and Gas Company Limited	160,800.00
W. ½ 2 and Sec. 3-48-10-5	Pan American Petroleum Corporation and Hudson's Bay Oil and Gas Company Limited	206,400.00
E. ½ 10 and W. ½ 11-48-10-5	Western Decalta Petroleum Limited and Consolidated East Crest Oil Company Limited	348,482.34
W. ½ 14 and Sec. 15-48-10-5	Fargo Oils Ltd.	505,000.00
S. ½ and N.W. ¼ 5-49-10-5	Canadian Homestead Oils Limited	120,850.00
W. ½ 8-49-10-5	Canadian Homestead Oils Limited	82,100.00
Sec. 17-49-10-5	Amurex Oil Company	96,000.00
E. ½ 20-49-10-5	Humber Oils Limited	34,000.00
E. ½ 29-49-10-5	South Edmonton Scrap Metal & Supply Ltd.	25,999.50
N. ½ and S.E. ¼ 32-49-10-5	Canada-Cities Service Petroleum Corporation	30,720.00
S. ½ 3-50-10-5	Whitehall Canadian Oils Ltd.	47,777.00
S. ½ 4-50-10-5	Whitehall Canadian Oils Ltd.	74,444.00
S. ½ 5-50-10-5	Whitehall Canadian Oils Ltd.	34,222.00
W. ½ 30-47- 6-5	Plymouth Oil Company	47,578.47
N. ½ 5, N. ½ 6, and S. ½ 7-49- 6-5	United Producing, Inc.	351,023.00
E. ½ 27-46- 7-5	Mill City Petroleum Limited	54,400.00
Sec. 35 and W. ½ 36-46- 7-5	Mill City Petroleum Limited	110,600.00
Sec. 31-49- 8-5	Canada-Cities Service Petroleum Corporation	352,640.00

CROWN RESERVES PURCHASED IN PEMBINA AREA

(Continued)

Description	Offer Accepted From:	Cash Purchase Price
Sec. 32-49- 8-5	Luscar Coals Limited	320,011.00
N. ½ and S.E. ¼ 33-49- 8-5	Mayfair Oil and Gas Ltd.	201,002.00
Sec. 34-49- 8-5	Canada-Cities Service Petroleum Corporation	416,640.00
Sec. 35-49- 8-5	Supertest Petroleum Corporation, Limited	241,550.00
Sec. 36-49- 8-5	Supertest Petroleum Corporation, Limited	226,660.00
E. ½ 12-47- 9-5	South Edmonton Scrap Metal & Supply Ltd.	26,102.50
Sec. 16-48-10-5	Western Decalta Petroleum Limited	192,280.00
Sec. 18-49-10-5	Canadian Kewanee Limited	167,500.00
N. ½ 31-49-10-5	Canadian Kewanee Limited	67,750.00
S. ½ and N.E. ¼ 1-50-10-5	Eugene Constantin, Jr.	74,880.00
Sec. 2-50-10-5	Mountain Park Coals Limited	66,021.00
S. ½ 6-50-10-5	Canadian Kewanee Limited	67,750.00
Sec. 31-47- 6-5	Skelly Oil Company	83,840.00
S. ½ and N.W. ¼ 6-48- 6-5	Swain Oils Ltd.	31,000.00
E. ½ 13-49- 7-5	Eugene Constantin, Jr.	72,576.86
N.E. ¼ 21 and E. ½ 28-49- 7-5	Colorado Oil and Gas Ltd.	181,400.26
N. ½ 22 and S. ½ and N.W. ¼ 27-49- 7-5	Colorado Oil and Gas Ltd.	165,400.26
S. ½ and N.W. ¼ 4 and Sec. 5-47- 9-5	Dome Petroleum Limited	241,600.00
Sec. 8 and W. ½ 9-47- 9-5	Dome Petroleum Limited	210,800.00
S. ½ 1 and S. ½ 2-50- 9-5	Colorado Oil and Gas. Ltd.	121,400.26
S. ½ and N.W. ¼ 3 and E. ½ 4-50- 9-5	Champlin Oil & Refining Co.	258,431.00
Sec. 4-48-10-5	Ashland Oil & Refining Company, Fort St. John Petroleum Ltd., Trinidad Central Oilfields, Limited, Westburne Oil Development Limited and Whitehall Canadian Oils Ltd.	60,566.00
Sec. 8-48-10-5	Sinclair Canada Oil Company	156,211.00
Sec. 17-48-10-5	Sinclair Canada Oil Company	156,211.00
Sec. 6-49-10-5	Canadian Kewanee Limited	186,275.00
Sec. 7-49-10-5	Canadian Kewanee Limited	225,600.00
Sec. 11-50-10-5	Swain Oils Ltd.	41,000.00
E. ½ 12-50-10-5	Skelly Oil Company	50,083.00
Sec. 13-49-11-5	Canadian Kewanee Limited	51,000.00
Sec. 14 and E. ½ 15-49-11-5	Canadian Kewanee Limited	65,000.00
E. ½ 22 and W. ½ 23-49-11-5	Canadian Kewanee Limited	41,000.00
W. ½ 26 and E. ½ 27-49-11-5	Canadian Kewanee Limited	35,500.00
W. ½ 19-49- 6-5		
N. ½ and S.E. ¼ 24-49- 7-5	Murphy-Canada Oil Company	116,000.00
E. ½ 24-48- 7-5	Luscar Coals Limited	176,011.00
N. ½ 23 and S. ½ 26-49- 7-5	Murphy-Canada Oil Company	105,600.00
Sec. 31-49- 7-5	Canada-Cities Service Petroleum Corporation	264,221.32
Sec. 32-49- 7-5	William Minto Mackay	71,112.12
N ½'s 31, 32, 33 and 34-46- 9-5	Skelly Oil Company	175,812.00
S. ½ and N.E. ¼ 1 and S ½ 2-47- 9-5	Skelly Oil Company	109,737.00
S. ¼ 3-47- 9-5	DeKalb Petroleum Corporation	83,699.00
Secs. 6 and 7-47- 9-5	DeKalb Petroleum Corporation	206,557.00
W. ½ 14 & S. ½ & N.E. ¼ 15-47-10-5	William Minto Mackay	76,112.12
E. ½ 22 and W. ½ 23-47-10-5	Luscar Coals Limited	208,011.00
Sec. 7-48-10-5	Skelly Oil Company	120,320.00
Sec. 18-48-10-5	Skelly Oil Company	120,320.00
W. ½'s 19, 30 and 31-48-10-5	Skelly Oil Company	180,480.00
E. ½'s 24, 25 and 36-48-11-5	William Minto Mackay	61,112.12
S. ½'s 1 & 2-49-11-5	William Minto Mackay	101,112.12
N. ½ and S.W. ¼ 35 & N. ½ 36-49-11-5	Skelly Oil Company	101,219.00
		<hr/> \$ 10,039,104.25

CROWN RESERVES PURCHASED IN PINCHER CREEK AREA

Description	Offer Accepted From:	Cash Purchase Price
N. ½ 6- 3-28-4	The British American Oil Company Limited	\$ 52,000.27
		<hr/> \$ 52,000.27

DEPARTMENT OF MINES AND MINERALS

CROWN RESERVES PURCHASED IN STETTTLER AREA

Description	Offer Accepted From:	Cash Purchase Price
W. ½ 18-38-20-4	The British American Oil Company Limited	\$ 51,857.59
		<hr/> \$ 51,857.59

CROWN RESERVES PURCHASED IN STURGEON LAKE SOUTH AREA

Description	Offer Accepted From:	Cash Purchase Price
W. ½ 17-68-21-5	Triad Oil Co. Ltd.	\$ 3,300.00
N. ½ 18-68-21-5	Roger Hector Belzil	5,071.20
W. ½ 20-68-21-5	Triad Oil Co. Ltd.	3,300.00
Sec. 8-69-21-5	Triad Oil Co. Ltd.	25,100.00
S. ½ 17-69-21-5	Triad Oil Co. Ltd.	3,300.00
W. ½ 18-69-21-5	South Edmonton Scrap Metal & Supply Ltd.	8,888.88
N. ½ 13-68-22-5	Triad Oil Co. Ltd.	3,300.00
E. ½ 13-69-22-5	Triad Oil Co. Ltd.	3,300.00
N. ½ 23-69-23-5	Amerada Petroleum Corporation	17,517.97
		<hr/> \$ 73,078.05

CROWN RESERVES PURCHASED IN SUNDRE AREA

Description	Offer Accepted From:	Cash Purchase Price
E. ½ 35-33- 5-5	Cree Oil of Canada Limited and DeKalb Agricultural Association, Inc.	\$ 42,699.00
E. ½ 2-34- 5-5	Cree Oil of Canada Limited and DeKalb Agricultural Association, Inc.	32,699.00
		<hr/> \$ 75,398.00

CROWN RESERVES PURCHASED IN SWAN HILLS AREA

Description	Offer Accepted From:	Cash Purchase Price
W. ½ 16-67-10-5	Home Oil Company Limited, French Petroleum Company of Canada, Ltd., Kern County Land Company and United Oils, Limited	\$ 717,000.00
W. ½ 21-67-10-5	Home Oil Company Limited, French Petroleum Company of Canada, Ltd., Kern County Land Company and United Oils, Limited	717,000.00
W. ½ 28-67-10-5	Home Oil Company Limited, French Petroleum Company of Canada, Ltd., Kern County Land Company and United Oils, Limited	667,000.00
S. ½ 31-67-10-5	Home Oil Company Limited, French Petroleum Company of Canada, Ltd., Kern County Land Company and United Oils, Limited	667,000.00
S. ½ 32-67-10-5	Home Oil Company Limited, French Petroleum Company of Canada, Ltd., Kern County Land Company and United Oils, Limited	667,000.00
E. ½ 14-67-11-5	General American Oils, Ltd.	255,000.00
E. ½ 23-67-11-5	General American Oils, Ltd.	255,000.00
E. ½ 26-67-11-5	General American Oils, Ltd.	255,000.00
E. ½ 16-67-10-5	Home Oil Company Limited, French Petroleum Company of Canada, Ltd., Kern County Land Company, Fargo Oils Ltd. and General American Oils Ltd.	1,350,500.00
E. ½ 21-67-10-5	C. L. McMahon, Inc.	1,311,111.77
E. ½ 28-67-10-5	Home Oil Company Limited, French Petroleum Company of Canada, Ltd., Kern County Land Company, Fargo Oils Ltd. and General American Oils Ltd.	1,250,500.00
N. ½ 31-67-10-5	C. L. McMahon, Inc.	1,127,777.77
N. ½ 32-67-10-5	C. L. McMahon, Inc.	863,120.46
		<hr/> \$ 10,103,010.00

CROWN RESERVES PURCHASED IN VIRGINIA HILLS AREA

Description	Offer Accepted From:	Cash Purchase Price
Sec. 18-65-13-5	J. Ray McDermott & Co., Inc.	\$ 247,000.00
Sec. 19-65-13-5	The Atlantic Refining Company	1,078,011.00
Sec. 30-65-13-5	Skelly Oil Company and Sinclair Canada Oil Company	710,330.00
		<hr/> \$ 2,035,341.00

CROWN RESERVES PURCHASED IN WESTWARD-HO AREA

Description	Offer Accepted From:	Cash Purchase Price
Sec. 24-33- 5-5	Honolulu Oil Corporation	\$ 60,500.99
N. ½ 16-33- 4-5	Cree Oil of Canada Limited	13,059.00
Sec. 28-33- 4-5	Cree Oil of Canada Limited	25,699.00
Sec. 4-34- 4-5	Cree Oil of Canada Limited	21,658.00
		<hr/>
		\$ 120,916.99

CROWN RESERVES PURCHASED IN WIMBORNE AREA

Description	Offer Accepted From:	Cash Purchase Price
N.E. ¼ 24-33-26-4	Mobil Oil of Canada, Ltd.	\$ 3,687.77
Sec. 34-33-26-4	Canadian Oil Companies, Limited, Banff Oil Ltd., Plymouth Oil Company and Mobil Oil of Canada, Ltd.	176,888.88
N.W. ¼ and S.E. ¼ 36-33-26-4	The British American Oil Company Limited, Mobil Oil of Canada, Ltd., Banff Oil Ltd., Canadian Oil Companies, Limited and Plymouth Oil Company	45,009.75
S. ½ and N.W. ¼ 4-34-26-4	Fort St. John Petroleums Ltd. (Non-Personal Liability), Trinidad Central Oilfields, Limited, Westburne Oil Development Limited and Whitehall Canadian Oils Ltd.	75,050.00
		<hr/>
		\$ 300,636.40

CROWN RESERVES PURCHASED ELSEWHERE IN ALBERTA

Description	Offer Accepted From:	Cash Purchase Price
N. ½ 32-41-15-4	The British American Oil Company Limited	\$ 5,002.67
N. ½ 34-41-15-4	The British American Oil Company Limited	8,003.27
N. ½ 32-37-20-4	The British American Oil Company Limited	5,002.67
S.E. ¼ 29-46-21-4	Western Decalta Petroleum Limited	1,685.40
S.W. ¼ 16-42-22-4	The California Standard Company	3,279.29
S. ½ 6-51-22-4	Texaco Exploration Company	11,111.00
N.W. ¼ 6-51-22-4	Texaco Exploration Company	5,611.00
S.W. ¼ 7-51-22-4	Texaco Exploration Company	2,562.00
S.E. ¼ 12-51-23-4	Texaco Exploration Company	1,777.00
Sec. 4-41-24-4	Shell Oil Company of Canada, Limited	9,669.76
W. ½ 6-40-25-4	Sohio Petroleum Company	11,232.00
S. ½ 4-34- 1-5	Texas Pacific Coal and Oil Company and The Pure Oil Company	32,364.80
Sec. 16-34- 1-5	Western Decalta Petroleum Limited and The Petrol Oil & Gas Company, Limited	166,432.20
S.W. ¼ 4-36- 1-5	West Canadian Oil & Gas Limited	4,444.44
W. ½ 16-30- 2-5	Home Oil Company Limited	61,860.00
N.E. ¼ 16-30- 2-5	Home Oil Company Limited	33,860.00
Sec. 18-50- 2-5	Texaco Exploration Company	20,416.00
S. ½ 2-35- 3-5	Sun Oil Company	19,500.00
N.E. ¼ 2-35- 3-5	Sun Oil Company	8,800.00
E. ½ 11-35- 3-5	Sun Oil Company	14,400.00
N. ½ 36-29- 4-5	Imperial Oil Limited	16,421.75
E. ½ 2-30- 4-5	Imperial Oil Limited	16,375.65
N. ½ 14-68-15-5	Texaco Exploration Company	5,126.00
S. ½ 14-68-15-5	Texaco Exploration Company	5,126.00
S. ½ and N.W. ¼ 6-41-11-4	Amerada Petroleum Corporation	24,532.80
S. ½ 4-23-12-4	Skelly Oil Company	5,530.00
S. ½ 5-23-12-4	Skelly Oil Company	5,565.00
E. ½ 9-23-12-4	Hudson's Bay Oil and Gas Company Limited and Canadian Delhi Oil Ltd.	11,526.40
N. ½ 20-23-12-4	United Canso Oil & Gas Ltd.	5,000.00
E. ½ 21-23-12-4	Canadian Bishop Oil, Ltd.	25,550.00
Sec. 1-26-12-4	Hudson's Bay Oil and Gas Company Limited and Canadian Delhi Oil Ltd.	6,444.80
S. ½ 2-26-12-4	Hudson's Bay Oil and Gas Company Limited and Canadian Delhi Oil Ltd.	4,022.40
S. ½ 3-26-12-4	Hudson's Bay Oil and Gas Company Limited and Canadian Delhi Oil Ltd.	3,222.40
E. ½ 12-41-12-4	Amerada Petroleum Corporation	16,355.20
W. ½ 11-42-13-4	Merit Oil Ltd.	6,440.61
N.W. ¼ 6-44-20-4	Hewitt Oil Company	2,080.00
Sec. 6-39-21-4	Home Oil Company Limited, United Oils, Limited and Tennessee Gas Transmission Company	71,000.00
Sec. 36-39-21-4	Hunt Oil Company	20,500.00
Sec. 24-16-25-4	The British American Oil Company Limited	7,701.19
Sec. 6-31-27-4	Hudson's Bay Oil and Gas Company Limited	7,315.00
W. ½ 6-37-27-4	Skelly Oil Company	10,080.00
W. ½ 18-37-27-4	Skelly Oil Company	10,080.00
Sec. 2-31-28-4	Hudson's Bay Oil and Gas Company Limited	7,326.00

CROWN RESERVES PURCHASED ELSEWHERE IN ALBERTA (Continued)

Description	Offer Accepted From:	Cash Purchase Price
W. ½ 14-19-29-4	William Drury Clark	4,508.40
N. ½ 10-34- 1-5	Pan American Petroleum Corporation	51,715.20
N.E. ¼ 30-29- 3-5	Amerada Petroleum Corporation	5,809.60
S.W. ¼ 30-29- 3-5	Amerada Petroleum Corporation	5,809.60
S. ½ 32-29- 3-5	Amerada Petroleum Corporation	11,619.20
Sec. 12-34- 5-5	Cree Oil of Canada Limited	41,899.00
Sec. 11-66-26-5	Amerada Petroleum Corporation and Triad Oil Co. Ltd.	32,710.40
S. ½ 15-66-26-5	Amerada Petroleum Corporation and Triad Oil Co. Ltd.	16,355.20
Sec. 34-39-21-4	Hunt Oil Company	23,040.00
Sec. 10-40-21-4	The California Standard Company	13,117.56
Sec. 4-41-19-4	The British American Oil Company Limited	11,521.95
Sec. 24-40-21-4	The California Standard Company	31,777.88
Sec. 34-40-21-4	The California Standard Company	53,133.37
N. ½ 32-33-22-4	Sun Oil Company	5,580.25
W. ½ 34-33-22-4	Sun Oil Company	5,528.74
S. ½ 4-34-22-4	Sun Oil Company	7,110.40
W. ½ 16-36-22-4	The British American Oil Company Limited	9,121.77
S.W. ¼ 28-49-25-4	Sage Oil Company Limited	4,960.00
E. ½ 29-34-26-4	Union Oil and Gas Corporation of Louisiana	25,515.25
N. ½ and S.E. ¼ 32-34-26-4	Union Oil and Gas Corporation of Louisiana	20,517.77
Sec. 24-44- 1-5	The British American Oil Company Limited, The California Standard Company, Canadian Husky Oil Ltd. and Phillips Petroleum Company	80,127.95
W. ½ 28-44- 1-5	The British American Oil Company Limited, The California Standard Company, Canadian Husky Oil Ltd. and Phillips Petroleum Company	33,087.65
Sec. 36-44- 1-5	The British American Oil Company Limited, The California Standard Company, Canadian Husky Oil Ltd. and Phillips Petroleum Company	80,127.95
Sec. 10-45- 1-5	Union Oil and Gas Corporation of Louisiana	609,411.11
N. ½ and S.E. ¼ 14-29- 3-5	The British American Oil Company Limited	13,464.64
Sec. 34-30- 3-5 (Except Natural Gas in Turner Valley Zone)	Canadian Superior Oil of California Ltd.	3,500.00
Sec. 6-31- 3-5 (Except Natural Gas in Turner Valley Zone)	Canadian Superior Oil of California Ltd.	16,000.00
Sec. 5-44-17-5	Sun Oil Company, Royalite Oil Company, Limited, The British American Oil Com- pany Limited and Triad Oil Co. Ltd.	9,630.00
Secs. 25 and 36-44-18-5	Sun Oil Company, Royalite Oil Company, Limited, The British American Oil Com- pany Limited and Triad Oil Co. Ltd.	32,030.00
Sec. 35-44-18-5	Sun Oil Company, Royalite Oil Company, Limited, The British American Oil Com- pany Limited and Triad Oil Co. Ltd.	16,030.00
		<hr/> \$ 1,995,095.54

PETROLEUM AND NATURAL GAS RESERVATIONS PURCHASED IN PROVINCIAL RESERVES

Description	Offer Accepted From:	Cash Purchase Price
Comprising 28,320 acres in townships 5 and 6, range 13, west of 4th meridian and located in Crow Indian Lake Provincial Reserve.	Canadian Seaboard Land Company	\$ 7,120.00
Comprising 98,560 acres in townships 65, 66 and 67, ranges 25 and 26, west of 4th meridian and located in Big Bend Provincial Reserve.	Tennessee Gas Transmission Company	254,750.00
Comprising 46,080 acres in townships 65 and 66, range 7, west of 5th meridian and located in Virginia Hills Provincial Reserve.	Imperial Oil Limited	501,258.44
Comprising 46,080 acres in townships 67 and 68, range 7, west of 5th meridian and located in Virginia Hills Provincial Reserve.	Shell Skeena Exploration Limited and Imperial Oil Limited	762,464.22
Comprising 92,160 acres in townships 65 and 66, ranges 8 and 9, west of 5th meridian and located in Virginia Hills Provincial Reserve.	Home Oil Company Limited, French Petroleum Company of Canada, Ltd. and Kern County Land Company	6,507,700.00
Comprising 88,160 acres in townships 86 and 87, ranges 7 and 8, west of 6th meridian and located in Clear Hills Provincial Reserve.	Shell Smoky Exploration Limited	809,751.67
Comprising 68,650 acres in townships 86 and 87, ranges 9 and 10, west of 6th meridian and located in Clear Hills Provincial Reserve.	Shell Smoky Exploration Limited	607,651.67
Comprising 40,000 acres in township 27, ranges 15 and 16, west of 4th meridian and located in Dorothy Provincial Reserve.	Canadian Kewanee Limited	407,750.00
Comprising 17,280 acres in township 5, range 14, west of 4th meridian and located in Crow Indian Lake Provincial Reserve.	Canadian Fina Oil Limited	3,555.00
Comprising 92,160 acres in townships 73 and 74, ranges 22 and 23, west of 4th meridian and located in Marten Hills Provincial Reserve.	Imperial Oil Limited, The Calgary & Edmonton Corporation Limited, Cree Oil of Canada Limited and Canadian Oil Companies, Limited	129,264.60
Comprising 92,160 acres in townships 75 and 76, ranges 22 and 23, west of 4th meridian and located in Marten Hills Provincial Reserve.	Union Oil Company of California	269,875.00
Comprising 92,160 acres in townships 73 and 74, ranges 24 and 25, west of 4th meridian and located in Marten Hills Provincial Reserve.	Home Oil Company Limited	301,000.00
Comprising 92,160 acres in townships 75 and 76, ranges 24 and 25, west of 4th meridian and located in Marten Hills Provincial Reserve.	Pan American Petroleum Corporation	235,929.66
		<u>\$10,798,070.26</u>

CROWN RESERVE DRILLING RESERVATIONS PURCHASED

Description	Offer Accepted From:	Cash Purchase Price
Located in township 39, ranges 6 and 7, west of 4th meridian, comprising 4,800 acres—Paleozoic sediments—six quarter sections.	Home Oil Company Limited	\$ 4,111.00
Located in townships 16 and 17, ranges 18 and 19, west of 4th meridian, comprising 6,560 acres—Jefferson formation—nine quarter sections.	Scurry-Rainbow Oil Limited	2,164.80
Located in townships 38 and 39, ranges 18 and 19, west of 4th meridian, comprising 5,600 acres—Wabamun formation—eight quarter sections.	Texaco Exploration Company	36,311.00
Located in townships 36 and 37, range 19, west of 4th meridian, comprising 5,760 acres—Wabamun formation—eight quarter sections.	Canadian Kewanee Limited	28,838.40
Located in townships 43 and 44, range 21, west of the 4th meridian, comprising 6,400 acres—Leduc member of the Woodbend formation—nine quarter sections.	Sohio Petroleum Company	7,344.00
Located in townships 34 and 35, ranges 22 and 23, west of 4th meridian, comprising 6,080 acres—Wabamun formation—ten quarter sections.	The British American Oil Company Limited	12,003.37
Located in townships 43 and 44, ranges 22, 23 and 24, west of the 4th meridian, comprising 6,754 acres—Cooking Lake member of the Woodbend formation—ten quarter sections.	Pan American Petroleum Corporation	75,160.71
Located in townships 29 and 30, ranges 25 and 26, west of 4th meridian, comprising 7,840 acres—Leduc member of the Woodbend formation—twelve quarter sections.	Union Oil and Gas Corporation of Louisiana	19,334.40
Located in townships 36 and 37, range 28, west of 4th meridian, comprising 7,390 acres—Leduc member of the Woodbend formation—twelve quarter sections.	Canadian Superior Oil of California, Ltd. and R. Adair Oil Management Ltd. each as to an undivided 50% interest	96,000.00
Located in township 43, ranges 7 and 8, west of 5th meridian, comprising 6,880 acres—Cardium formation—ten quarter sections.	Columbus Minerals Ltd.	7,277.00
Located in township 50, ranges 7 and 8, west of the 5th meridian, comprising 7,360 acres—Mississippian age—ten quarter sections.	Consolidated Mic Mac Oils Ltd. and Colorado Oil and Gas Ltd.	110,493.00
Located in townships 55 and 56, range 14, west of 5th meridian, comprising 10,880 acres—Gilwood sand of the Elk Point group—sixteen quarter sections.	Mobil Oil of Canada, Ltd.	18,169.60
Located in townships 73 and 74, ranges 16 and 17, west of 5th meridian, comprising 8,320 acres—Precambrian granite—twelve quarter sections.	Texas Pacific Coal & Oil Company and The Pure Oil Company each as to an undivided 50% interest	1,040.00
Located in townships 51, 52 and 53, ranges 1 and 2, west of 6th meridian, comprising 11,040 acres—Flume formation—sixteen quarter sections.	Triad Oil Co. Ltd.	9,530.00
Located in township 87, ranges 1 and 2, west of 6th meridian, comprising 7,680 acres—Precambrian granite—eleven quarter sections.	Imperial Oil Limited	18,033.56
Located in townships 52 and 53, range 2, west of 6th meridian, comprising 10,720 acres—Flume formation—sixteen quarter sections.	Triad Oil Co. Ltd.	9,530.00

CROWN RESERVE DRILLING RESERVATIONS PURCHASED (Continued)

Description	Offer Accepted From:	Cash Purchase Price
Located in township 28, ranges 13 and 14, west of the 4th meridian, comprising 4,320 acres—Basal Colorado formation—six quarter sections.	The California Standard Company	5,217.27
Located in township 29, range 18, west of 4th meridian, comprising 7,040 acres—Leduc member of the Woodbend formation—ten quarter sections.	Western Warner Oils Ltd.	5,200.00
Located in townships 16 and 17, ranges 19 and 20, west of the 4th meridian, comprising 6,720 acres—Shunda formation of the Rundle group—nine quarter sections.	Great Plains Development Company of Canada Ltd.	61,616.10
Located in townships 44 and 45, ranges 19 and 20, west of 4th meridian, comprising 4,800 acres—Devonian system—seven quarter sections.	Texaco Exploration Company	11,516.00
Located in township 64, ranges 19 and 20, west of 4th meridian, comprising 6,400 acres—Precambrian granite—nine quarter sections.	Texaco Exploration Company	51,256.00
Located in township 12, range 23, west of 4th meridian, comprising 7,360 acres—Wabamun group—ten quarter sections.	Canadian High Crest Oils Limited	8,073.60
Located in townships 40, 41 and 42, ranges 24, 25 and 26, west of the 4th meridian, comprising 9,600 acres—Elk Point group—fourteen quarter sections.	Canadian Prospect Ltd.	51,101.11
Located in townships 19 and 20, ranges 25 and 26, west of 4th meridian, comprising 8,000 acres—Wabamun group—eleven quarter sections.	Pacific Petroleums Ltd.	17,652.80
Located in townships 33, 34 and 35, ranges 27 and 28, west of 4th meridian, comprising 8,320 acres—Leduc member of the Woodbend formation—twelve quarter sections.	Amerada Petroleum Corporation	53,333.55
Located in townships 34 and 35, ranges 1 and 2, west of the 5th meridian, comprising 8,960 acres—Leduc member of the Woodbend formation—fourteen quarter sections.	Imperial Oil Limited	101,145.15
Located in townships 15 and 16, range 2, west of 5th meridian, comprising 5,840 acres—Rundle group—eight quarter sections.	Texaco Exploration Company	71,680.00
Located in townships 69 and 70, range 2, west of 5th meridian, comprising 7,040 acres—Precambrian granite—ten quarter sections.	Tennessee Gas Transmission Company	50,421.00
Located in townships 39 and 40, range 4, west of 5th meridian, comprising 8,160 acres—Banff formation—twelve quarter sections.	Home Oil Company Limited and Kern County Land Company as to an undivided 75% and 25% interest respectively	176,000.00
Located in townships 47 and 48, ranges 5 and 6, west of 5th meridian, comprising 6,400 acres—Mississippian age—ten quarter sections.	Canada-Cities Service Petroleum Corporation	41,514.00
Located in township 60, range 7, west of 5th meridian, comprising 9,600 acres, Gilwood sand of the Elk Point group—fourteen quarter sections.	Western Leaseholds Ltd.	5,602.55
Located in townships 30, 31 and 32, ranges 6 and 7, west of 5th meridian, comprising 11,360 acres—Rundle group—sixteen quarter sections.	Scurry-Rainbow Oil Limited	5,793.60

CROWN RESERVE DRILLING RESERVATIONS PURCHASED

(Continued)

Description	Offer Accepted From:	Cash Purchase Price
Located in township 87, ranges 25 and 26, west of 5th meridian and township 87, range 1, west of 6th meridian, comprising 7,797 acres — Precambrian granite—eleven quarter sections.	Texaco Exploration Company	61,511.00
Located in townships 62 and 63, ranges 25 and 26, west of 5th meridian, comprising 11,360 acres—Woodbend formation—sixteen quarter sections.	Shell Oil Company of Canada, Limited	67,797.95
Located in townships 62 and 63, ranges 25 and 26, west of 5th meridian, comprising 11,360 acres—Woodbend formation—sixteen quarter sections.	Shell Oil Company of Canada, Limited	144,795.95
Located in townships 86 and 87, range 1, west of 6th meridian, comprising 8,000 acres — Precambrian granite—eleven quarter sections.	Texaco Exploration Company	61,511.00
Located in townships 74 and 75, ranges 4 and 5, west of 6th meridian, comprising 7,200 acres—Permo-Pennsylvanian sediments—ten quarter sections.	Pan American Petroleum Corporation	14,904.00
Located in townships 24 and 25, range 2, west of 4th meridian, comprising 6,080 acres—Jefferson formation—eight quarter sections.	Union Oil Company of California and Permo Gas & Oil Limited	9,400.00
Located in townships 24 and 25, range 3, west of 4th meridian, comprising 5,920 acres—Jefferson formation—eight quarter sections.	Union Oil Company of California and Permo Gas & Oil Limited	9,300.00
Located in townships 44 and 45, range 13, west of 4th meridian, comprising 5,440 acres—Cooking Lake member of the Woodbend formation—eight quarter sections.	The California Standard Company	17,444.44
Located in township 46, ranges 14 and 15, west of 4th meridian, comprising 5,440 acres—Cooking Lake member of the Woodbend formation—eight quarter sections.	Amerada Petroleum Corporation	19,202.04
Located in townships 38 and 39, ranges 15 and 16, west of 4th meridian, comprising 6,240 acres — Basal Blairmore member of the Blairmore formation—eight quarter sections.	West Canadian Oil & Gas Limited	6,801.60
Located in townships 63 and 64, range 17, west of 4th meridian, comprising 4,480 acres — Leduc member of the Woodbend formation — six quarter sections.	Western Leaseholds Ltd. and Union Oil Company of California	2,589.00
Located in townships 37, 38 and 39, ranges 27 and 28, west of 4th meridian, and townships 37 and 38, range 1, west of 5th meridian, comprising 9,930 acres —Leduc member of the Woodbend formation—fourteen quarter sections.	Texaco Exploration Company	152,117.17
Located in townships 29 and 30, ranges 1, 2 and 3, west of 5th meridian, comprising 8,320 acres—Shunda formation of the Rundle group — twelve quarter sections.	Amurex Oil Company, Southland Royalty Company and Harry Bass Oil Company	350,170.75
Located in townships 32, 33 and 34, ranges 1 and 2, west of 5th meridian, comprising 10,320 acres—Leduc member of the Woodbend formation — sixteen quarter sections.	Texaco Exploration Company	517,127.66
Located in townships 58 and 59, ranges 8 and 9, west of 5th meridian, comprising 6,560 acres — Mississippian age—nine quarter sections.	Canada-Cities Service Petroleum Corporation	21,816.00

CROWN RESERVE DRILLING RESERVATIONS PURCHASED (Continued)

Description	Offer Accepted From:	Cash Purchase Price
Located in township 59, ranges 8 and 9, west of 5th meridian, comprising 6,400 acres — Mississippian age — nine quarter sections.	Canada-Cities Service Petroleum Corporation	17,452.80
Located in townships 30, 31 and 32, ranges 9 and 10, west of 5th meridian, comprising 10,240 acres—Mississippian age—fourteen quarter sections.	Canex Aerial Exploration Ltd.	164,454.40
Located in townships 59 and 60, range 12, west of 5th meridian, comprising 9,876 acres—Gilwood Sand of the Elk Point group—fourteen quarter sections.	Canada-Cities Service Petroleum Corporation	76,921.60
Located in townships 76 and 77, ranges 22 and 23, west of 5th meridian, comprising 8,320 acres — Precambrian granite—twelve quarter sections.	Colorado Oil and Gas Ltd.	84,400.26
Located in townships 83 and 84, range 22, west of 5th meridian, comprising 6,240 acres — Mississippian age — eight quarter sections.	Shell Oil Company of Canada, Limited	2,555.99
Located in townships 84 and 85, range 22, west of 5th meridian, comprising 6,080 acres — Mississippian age — eight quarter sections.	Texaco Exploration Company	3,212.80
Located in township 64, range 25, west of 5th meridian, comprising 7,840 acres —Gething formation — eleven quarter sections.	Amerada Petroleum Corporation	61,165.18
Located in townships 62 and 63, ranges 26 and 27, west of 5th meridian, comprising 11,314 acres—Woodbend formation—sixteen quarter sections.	Western Decalta Petroleum Limited, The Petrol Oil & Gas Company, Limited and Canpet Exploration Ltd.	56,350.00
Located in townships 26 and 27, ranges 11 and 12, west of 4th meridian, comprising 7,040 acres—Elk Point group—ten quarter sections.	The California Standard Company	17,667.79
Located in townships 41 and 42, range 11, west of 4th meridian, comprising 4,480 acres — Basal Quartz Sandstone member of the Blairmore formation—six quarter sections.	Barron Kidd	4,704.00
Located in township 26, range 12, west of 4th meridian, comprising 7,360 acres —Elk Point group—ten quarter sections.	The California Standard Company	17,667.79
Located in township 44, range 12, west of 4th meridian, comprising 3,840 acres —Basal Quartz Sandstone member of the Blairmore formation — six quarter sections.	Amerada Petroleum Corporation	10,646.40
Located in township 45, ranges 12 and 13, west of 4th meridian, comprising 3,840 acres — Basal Quartz Sandstone member of the Blairmore formation—six quarter sections.	David Daniel Feldman	20,010.00
Located in townships 41 and 42, range 14, west of 4th meridian, comprising 5,920 acres—Leduc member of the Woodbend formation — eight quarter sections.	Prudential Trust Company Limited	13,120.00
Located in townships 40 and 41, range 15, west of 4th meridian, comprising 5,760 acres — Ireton member of the Woodbend formation—eight quarter sections.	The British American Oil Company Limited	23,078.40
Located in townships 40 and 41, ranges 18 and 19, west of 4th meridian, comprising 5,600 acres—Wabamun group—eight quarter sections.	The British American Oil Company Limited	32,065.65

CROWN RESERVE DRILLING RESERVATIONS PURCHASED (Continued)

Description	Offer Accepted From:	Cash Purchase Price
Located in townships 33 and 34, ranges 24 and 25, west of 4th meridian, comprising 8,000 acres—Wabamun group—ten quarter sections.	Kerr-McGee Oil Industries, Inc., and Clark Clifford	65,040.00
Located in townships 70 and 71, ranges 24 and 25, west of 4th meridian, comprising 6,880 acres — Precambrian granite—ten quarter sections.	Canadian Oil Companies, Limited, Union Oil Company of California, Home Oil Company Limited and The Calgary & Edmonton Corporation Limited	2,830.00
Located in townships 41 and 42, ranges 4 and 5, west of 5th meridian, comprising 8,000 acres—Pekisko formation—twelve quarter sections.	The British American Oil Company Limited	60,134.40
Located in townships 76, 77 and 78, ranges 25 and 26, west of 5th meridian, comprising 9,280 acres — Precambrian granite—fourteen quarter sections.	Hudson's Bay Oil and Gas Company Limited and Union Oil Company of California	78,870.40
Located in townships 76 and 77, range 26, west of 5th meridian, and township 76, range 1, west of 6th meridian, comprising 9,821 acres — Precambrian granite—fourteen quarter sections.	Sohio Petroleum Company	63,836.50
Located in townships 34 and 35, range 5, west of 4th meridian, comprising 5,440 acres—Jefferson formation—eight quarter sections.	Sun Oil Company	9,611.00
Located in townships 38 and 39, range 6, west of 4th meridian, comprising 4,640 acres—Paleozoic sediments — six quarter sections.	Texaco Exploration Company	41,040.11
Located in township 7, ranges 10 and 11, west of 4th meridian, comprising 4,800 acres, Mississippian age—seven quarter sections.	Scurry-Rainbow Oil Limited	2,640.00
Located in townships 42, 43 and 44, ranges 14 and 15, west of 4th meridian, comprising 5,120 acres — Wabamun group—seven quarter sections.	Sohio Petroleum Company	27,900.00
Located in townships 43 and 44, range 16, west of 4th meridian, comprising 6,400 acres—Cooking Lake member of the Woodbend formation—nine quarter sections.	Richfield Oil Corporation	68,353.42
Located in township 1, range 17, west of 4th meridian, comprising 4,480 acres —Mississippian age — six quarter sections.	Henry Silliman McQueen	240,000.00
Located in townships 39 and 40, range 22, west of 4th meridian, comprising 6,395 acres — Leduc member of the Woodbend formation—ten quarter sections.	Pan American Petroleum Corporation	430,039.25
Located in townships 30 and 31, ranges 24 and 25, west of 4th meridian, comprising 7,680 acres—Cooking Lake member of the Woodbend formation—twelve quarter sections.	Mobil Oil of Canada, Ltd.	29,126.40
Located in townships 51 and 52, ranges 26 and 27, west of 4th meridian, comprising 6,560 acres — Beaverhill Lake formation—ten quarter sections.	The California Standard Company	631,777.77
Located in townships 29 and 30, ranges 3 and 4, west of 5th meridian, comprising 9,760 acres—Shunda formation of the Rundle group—fourteen quarter sections.	Canadian Export Gas & Oil Ltd. and Cree Oil of Canada Limited	25,101.01

CROWN RESERVE DRILLING RESERVATIONS PURCHASED (Continued)

Description	Offer Accepted From:	Cash Purchase Price
Located in townships 28, 29 and 30, ranges 6 and 7, west of 5th meridian, comprising 11,920 acres—Turner Valley formation of the Rundle group—sixteen quarter sections.	Imperial Oil Limited	41,615.11
Located in township 66, range 14, west of 5th meridian, comprising 9,600 acres—Gilwood sand of the Elk Point group—fourteen quarter sections.	Sun Oil Company	448,333.00
Located in townships 71 and 72, ranges 5 and 6, west of 6th meridian, comprising 8,320 acres—Mississippian age—twelve quarter sections.	Shell Oil Company of Canada, Limited	2,001.01
Located in township 74, range 8, west of 6th meridian, comprising 8,320 acres—Permo - Pennsylvanian sediments—twelve quarter sections.	Sohio Petroleum Company and Sinclair Canada Oil Company	29,000.00
Located in townships 51, 52 and 53, ranges 2 and 3, west of 4th meridian, comprising 6,240 acres—Middle Sandstone unit of the Cambrian system—nine quarter sections.	The California Standard Company	8,380.00
Located in township 40, range 5, west of 4th meridian, comprising 5,280 acres—Paleozoic sediments—seven quarter sections.	The British American Oil Company Limited	3,513.89
Located in township 41, ranges 6 and 7, west of 4th meridian, comprising 4,800 acres—Paleozoic sediments—seven quarter sections.	Home Oil Company Limited	3,100.00
Located in townships 13 and 14, ranges 9 and 10, west of 4th meridian, comprising 4,480 acres—Mississippian age—six quarter sections.	Home Oil Company Limited and Western Leaseholds Ltd.	3,100.00
Located in township 23, ranges 13 and 14, west of 4th meridian, comprising 5,120 acres—Mississippian age—seven quarter sections.	Mobil Oil of Canada, Ltd.	22,881.60
Located in townships 23 and 24, ranges 13 and 14, west of 4th meridian, comprising 5,280 acres—Mississippian age—seven quarter sections.	Mobil Oil of Canada, Ltd.	22,881.60
Located in townships 41, 42 and 43, ranges 17 and 18, west of 4th meridian, comprising 6,720 acres—Elk Point group—ten quarter sections.	The British American Oil Company Limited	15,175.55
Located in townships 12 and 13, range 19, west of 4th meridian, comprising 5,760 acres—Banff formation—eight quarter sections.	Home Oil Company Limited	2,600.00
Located in townships 13 and 14, range 19, west of 4th meridian, comprising 5,600 acres—Banff formation—eight quarter sections.	Home Oil Company Limited	2,600.00
Located in townships 29 and 30, range 19, west of 4th meridian, comprising 6,080 acres—Nisku member of the Winterburn formation—nine quarter sections.	Supertest Petroleum Corporation, Limited	18,908.80
Located in township 29, ranges 21 and 22, west of 4th meridian, comprising 6,480 acres—Nisku member of the Winterburn formation—ten quarter sections.	Calvan Consolidated Oil & Gas Company Limited	6,501.00
Located in townships 39, 40 and 41, ranges 23 and 24, west of 4th meridian, comprising 6,880 acres—Leduc member of the Woodbend formation—ten quarter sections.	The British American Oil Company Limited	16,101.69

CROWN RESERVE DRILLING RESERVATIONS PURCHASED (Continued)

Description	Offer Accepted From:	Cash Purchase Price
Located in townships 31, 32 and 33, ranges 2 and 3, west of 5th meridian, comprising 8,480 acres—Turner Valley formation of the Rundle group—fourteen quarter sections.	Shell Oil Company of Canada, Limited and Canadian Superior Oil of California, Ltd.	156,982.77
Located in townships 28 and 29, ranges 7 and 8, west of 5th meridian, comprising 10,560 acres—Mississippian age—sixteen quarter sections.	Imperial Oil Limited	803,964.00
Located in townships 29 and 30, range 8, west of 5th meridian, comprising 10,720 acres—Mississippian age—sixteen quarter sections.	Imperial Oil Limited	208,457.00
Located in township 81, ranges 14 and 15, west of 5th meridian, comprising 7,520 acres—Granite wash—eleven quarter sections.	Richfield Oil Corporation	13,413.13
Located in townships 80 and 81, ranges 21 and 22, west of 5th meridian, comprising 7,680 acres — Precambrian granite—eleven quarter sections.	Imperial Oil Limited	3,697.29
Located in township 60, ranges 23, 24 and 25, west of 5th meridian, comprising 10,080 acres—Leduc member of the Woodbend formation — sixteen quarter sections.	Placid Oil Company	357,225.54
Located in townships 63 and 64, ranges 25 and 26, west of 5th meridian, comprising 7,680 acres—Gething formation—eleven quarter sections.	Western Decalta Petroleum Limited, The Petrol Oil & Gas Company, Limited (No Personal Liability), Altana Exploration Company, Sohio Petroleum Company, Canpet Exploration Ltd., Canadian Export Gas and Oil Ltd. and Cree Oil of Canada, Limited	414,128.00
Located in townships 64 and 65, ranges 25 and 26, west of 5th meridian, comprising 7,680 acres — Gething formation—eleven quarter sections.	Triad Oil Co. Ltd., Imperial Oil Limited and Canadian Oil Companies, Ltd	115,000.97
Located in townships 57 and 58, ranges 13 and 14, west of 4th meridian, comprising 4,480 acres — Beaverhill Lake formation—six quarter sections.	Kerr-McGee Oil Industries, Inc.	1,120.00
Located in township 58, ranges 13 and 14, west of 4th meridian, comprising 4,480 acres—Beaverhill Lake formation—six quarter sections.	Kerr-McGee Oil Industries, Inc.	4,614.40
Located in township 61, range 16, west of 4th meridian, comprising 5,120 acres —Nisku member of the Winterburn formation—six quarter sections.	The California Standard Company	6,162.00
Located in townships 28 and 29, ranges 18 and 19, west of the 4th meridian, comprising 6,880 acres—Leduc member of the Woodbend formation—ten quarter sections.	Mobil Oil of Canada, Ltd.	33,952.22
Located in townships 16 and 17, range 19, west of 4th meridian, comprising 6,560 acres—Elkton member of the Turner Valley formation—nine quarter sections.	David Daniel Feldman and Ceepee Oil Company Limited	82,027.00
Located in townships 22 and 23, ranges 6 and 7, west of 5th meridian, comprising 13,800 acres—10,000 feet—sixteen quarter sections.	The California Standard Company and Shell Oil Company of Canada, Limited	1,253,002.11
Located in township 66, ranges 18 and 19, west of 5th meridian, comprising 10,720 acres—Precambrian granite—sixteen quarter sections.	Tidewater Oil Company	770,022.40

CROWN RESERVE DRILLING RESERVATIONS PURCHASED (Continued)

Description	Offer Accepted From:	Cash Purchase Price
Located in township 67, ranges 18 and 19, west of 5th meridian, comprising 10,240 acres—Precambrian granite—sixteen quarter sections.	Imperial Oil Limited	515,322.44
Located in township 81, range 19, west of 5th meridian, comprising 6,870 acres—Leduc member of the Woodbend formation—ten quarter sections.	Woodley Canadian Oil Company	26,851.00
Located in townships 76 and 77, ranges 24 and 25, west of 5th meridian, comprising 9,600 acres — Precambrian granite—fourteen quarter sections.	Colorado Oil and Gas. Ltd.	102,012.00
Located in township 71, range 26, west of 5th meridian, and township 71, ranges 1 and 2, west of 6th meridian, comprising 10,528 acres—Gilwood sand of the Elk Point group—sixteen quarter sections.	Texaco Exploration Company	56,433.33
Located in township 71, range 26, west of 5th meridian, and townships 71 and 72, range 1, west of 6th meridian, comprising 10,112 acres—Gilwood sand of the Elk Point group — sixteen quarter sections.	Texaco Exploration Company	66,333.33
Located in township 38, ranges 8 and 9, west of 4th meridian, comprising 4,640 acres—Paleozoic sediments—six quarter sections.	Sun Oil Company	36,111.11
Located in townships 40 and 41, ranges 13 and 14, west of 4th meridian, comprising 6,080 acres—Ireton member of the Woodbend formation—eight quarter sections.	Great Plains Development Company of Canada, Ltd. and Canadian Superior Oil of California, Ltd.	31,111.31
Located in townships 44 and 45, ranges 13 and 14, west of 4th meridian, comprising 5,760 acres—Cooking Lake member of the Woodbend formation—eight quarter sections.	John Albert McCarty and Joseph Pickens Coleman	33,931.00
Located in townships 45 and 46, ranges 14 and 15, west of 4th meridian, comprising 5,760 acres—Cooking Lake member of the Woodbend formation—eight quarter sections.	Charles McGaha	30,091.00
Located in townships 31 and 32, range 18, west of 4th meridian, comprising 6,080 acres—Nisku member of the Winterburn formation — nine quarter sections.	Texaco Exploration Company	36,288.00
Located in township 29, ranges 20 and 21, west of 4th meridian, comprising 7,040 acres — Leduc member of the Woodbend formation—ten quarter sections.	Imperial Oil Limited	111,450.65
Located in townships 57 and 58, ranges 20 and 21, west of 4th meridian, comprising 5,120 acres—Elk Point group—eight quarter sections.	Westcoast Production Co. Ltd. and Pacific Petroleum Ltd.	32,140.80
Located in township 85, ranges 20 and 21, west of 4th meridian, comprising 6,720 acres—Precambrian granite—nine quarter sections.	Amerada Petroleum Corporation	10,886.40
Located in township 85, ranges 20 and 21, west of 4th meridian, comprising 6,560 acres—Precambrian granite—nine quarter sections.	Amerada Petroleum Corporation	10,886.40
Located in townships 49 and 50, ranges 6 and 7, west of 5th meridian, comprising 6,720 acres—Mississippian age—ten quarter sections.	Cree Oil of Canada (1958) Limited and DeKalb Petroleum Corporation	914,656.00

CROWN RESERVE DRILLING RESERVATIONS PURCHASED (Continued)

Description	Offer Accepted From:	Cash Purchase Price
Located in townships 71 and 72, range 6, west of 5th meridian, comprising 8,160 acres—Precambrian granite—twelve quarter sections.	Union Oil Company of California, Supertest Petroleum Corporation Limited, Cree Oil of Canada (1958) Limited, DeKalb Petroleum Corporation and Pan American Petroleum Corporation	11,656.00
Located in townships 71 and 72, ranges 10 and 11, west of 5th meridian, comprising 8,320 acres—Precambrian granite—twelve quarter sections.	Pacific Petroleum Ltd., Honolulu Oil Corporation and Imperial Oil Limited	19,566.64
Located in townships 71 and 72, ranges 11 and 12, west of 5th meridian, comprising 8,480 acres—Precambrian granite—twelve quarter sections.	Pacific Petroleum Ltd., Honolulu Oil Corporation and Imperial Oil Limited	19,556.64
Located in townships 69 and 70, ranges 12 and 13, west of 5th meridian, comprising 8,320 acres—Gilwood sand of the Elk Point group—twelve quarter sections.	Sun Oil Company, French Petroleum Company of Canada Ltd., Pacific Petroleum Ltd. and Calvan Consolidated Oil & Gas Co. Ltd.	28,888.88
Located in townships 70 and 71, range 12, west of 5th meridian, comprising 8,480 acres—Gilwood sand of the Elk Point group—twelve quarter sections.	Sun Oil Company	24,222.22
Located in townships 67 and 68, range 2, west of 6th meridian, comprising 12,800 acres—Precambrian granite—sixteen quarter sections.	Triad Oil Co. Ltd. and The Calgary & Edmonton Corporation Limited	60,517.32
Located in townships 73, 74 and 75, ranges 2 and 3, west of 6th meridian, comprising 10,720 acres—Woodbend formation—sixteen quarter sections.	Medallion Petroleum Limited, Canadian Devonian Petroleum Limited and The California Standard Company	17,070.00
Located in townships 79 and 80, ranges 2 and 3, west of 6th meridian, comprising 9,440 acres—Precambrian granite—fourteen quarter sections.	Honolulu Oil Corporation, The Calgary & Edmonton Corporation Limited, Triad Oil Co. Ltd. and Harry Wesley Bass	33,678.34
Located in townships 67 and 68, range 3, west of 6th meridian, comprising 12,800 acres—Precambrian granite—sixteen quarter sections.	Triad Oil Co. Ltd. and The Calgary & Edmonton Corporation Limited	64,528.68
Located in townships 73, 74 and 75, range 3, west of 6th meridian, comprising 10,880 acres—Woodbend formation—sixteen quarter sections.	Medallion Petroleum Limited, Canadian Devonian Petroleum Limited and The California Standard Company	13,030.00
Located in township 79, ranges 9 and 10, west of 6th meridian, comprising 7,040 acres—Permo-Pennsylvanian sediments—ten quarter sections.	Canadian Fina Oil Limited, Royalite Oil Company, Limited and Devon-Palmer Oils Ltd. (N.P.L.)	2,520.00
		<hr/> \$12,190,927.02

CROWN RESERVE NATURAL GAS LICENCES PURCHASED

Description	Offer Accepted From:	Cash Purchase Price
Comprising 9,120 acres in township 8, ranges 17 and 18, west of the 4th meridian.	Medallion Petroleum Limited and Imperial Oil Limited	\$ 18,335.75
Comprising 8,766 acres in townships 40 and 41, ranges 21 and 22, west of the 4th meridian.	Bailey Selburn Oil & Gas Ltd., Texas Pacific Coal and Oil Company and Crow's Nest Pass Coal Company Limited	664,587.87
Comprising 26,560 acres in townships 24 and 25, ranges 4 and 5, west of 4th meridian.	The Calgary & Edmonton Corporation Limited, Cree Oil of Canada Limited and Bailey Selburn Oil & Gas Ltd.	7,969.69
Comprising 19,200 acres in townships 44 and 45, ranges 3, 4 and 5, west of the 5th meridian.	Colorado Oil and Gas Ltd., Anderson-Prichard Oil Corporation and Skelly Oil Company	201,230.26

CROWN RESERVE NATURAL GAS LICENCES PURCHASED (Continued)

Description	Offer Accepted From:	Cash Purchase Price
Comprising 11,360 acres in township 1, range 9, west of the 4th meridian.	Canadian-Montana Gas Company Limited	31,000.00
Comprising 58,400 acres in townships 36, 37 and 38, ranges 2, 3 and 4, west of the 4th meridian.	Provo Gas Producers Limited	3,333.00
Comprising 18,560 acres in townships 22 and 23, range 10, west of 4th meridian.	Tidal Petroleum Corporation Ltd. and Canadian Chieftain Petroleums Ltd.	145,000.00
Comprising 24,320 acres in townships 27 and 28, range 10, west of the 4th meridian.	Kerr-McGee Oil Industries, Inc.	68,825.60
Comprising 19,200 acres in townships 13 and 14, ranges 16 and 17, west of the 4th meridian.	Sun Oil Company	111,111.11
Comprising 40,000 acres in townships 79 and 80, ranges 23 and 24, west of the 5th meridian.	Colorado Oil and Gas Ltd. and Imperial Oil Limited	185,266.88
		<u>\$ 1,436,660.16</u>

CROWN RESERVE FRACTIONAL AREA LEASES PURCHASED

Description	Offer Accepted From:	Cash Purchase Price
Portions of section 9, township 39, range 26, west of the 4th meridian—62 acres.	Sun Oil Company	\$ 16,032.58
Portions of section 9, township 39, range 26, west of the 4th meridian—12 acres.	Imperial Oil Limited	3,103.08
Portions of section 17, township 39, range 26, west of the 4th meridian—28 acres.	Imperial Oil Limited	7,240.52
Portions of section 13, township 39, range 27, west of the 4th meridian—40 acres.	Imperial Oil Limited	8,333.20
Portions of section 15, township 53, range 26, west of the 4th meridian—1 acre.	Consolidated Mic Mac Oils Ltd.	67.13
Portions of section 1, township 38, range 25, west of the 4th meridian—29.4 acres.	Brinkerhoff Drilling Co. Ltd.	4,836.59
Portions of section 17, township 39, range 26, west of the 4th meridian—41 acres.	Imperial Oil Limited	10,602.19
Portions of section 19, township 3, range 28, west of the 4th meridian and portions of sections 13 and 25, township 3, range 29, west of the 4th meridian—26.1 acres.	The British American Oil Company Limited	32,715.00
Portions of section 2, township 25, range 21, west of the 4th meridian—11 acres.	Tennessee Gas Transmission Company	6,445.00
Portions of section 34, township 38, range 27, west of the 4th meridian—22.5 acres.	Marion Harry Stekolli	10,301.85
Portions of section 8, township 43, range 23, west of the 4th meridian—10 acres.	Canex Gas Ltd.	469.80
Portions of sections 3 and 4, township 25, range 20, west of the 4th meridian—34 acres.	Mobil Oil of Canada, Ltd.	850.00
Portions of section 9, township 25, range 20, west of the 4th meridian—75 acres.	Mobil Oil of Canada, Ltd.	1,875.00
Portions of section 1, township 25, range 21, west of the 4th meridian—54 acres.	Tennessee Gas Transmission Company	31,639.14

CROWN RESERVE FRACTIONAL AREA LEASES PURCHASED (Continued)

Description	Offer Accepted From:	Cash Purchase Price
Portions of section 27, township 38, range 27, west of the 4th meridian—25.5 acres.	Marion Harry Stekoll	11,675.43
Portions of section 33, township 43, range 22, west of the 4th meridian—92 acres.	Falcon Exploration Ltd.	4,322.16
Portions of section 17, township 49, range 4, west of the 5th meridian—1.6 acres.	Marion Harry Stekoll	564.66
		<hr/> \$ 151,073.33

CROWN RESERVE NATURAL GAS LEASES PURCHASED Pursuant to The Mines and Minerals Act Section 280

Description	Offer Accepted From:	Cash Purchase Price
Section 14, township 22, range 3, west of the 4th meridian—638 acres.	Bailey Selburn Oil & Gas Ltd.	\$ 3,349.50
Portions of section 11, township 26, range 21, west of the 4th meridian—72 acres.	Tennessee Gas Transmission Company	5,273.44
		<hr/> \$ 8,622.94

CROWN RESERVE NATURAL GAS LEASES PURCHASED Pursuant to The Mines and Minerals Act Section 282 Subsection (2) Clause (a)

Description	Offer Accepted From:	Cash Purchase Price
Sections 4, 6 and 10 and portions of section 7, township 29, range 22, west of 4th meridian, section 7, township 30, range 22, west of 4th meridian and sections 1 and 12, township 30, range 23, west of the 4th meridian—3,920 acres.	Canadian Western Natural Gas Company Limited	\$ 416,400.00
		<hr/> \$ 416,400.00

CROWN RESERVE NATURAL GAS LEASES PURCHASED Pursuant to The Mines and Minerals Act Section 282 Subsection (2) Clause (b)

Description	Offer Accepted From:	Cash Purchase Price
Portions of section 13, township 39, range 22, west of the 4th meridian—50.65 acres.	New Superior Oils of Canada Limited	\$ 35,792.30
Portions of section 6, township 35, range 6, west of the 4th meridian—314 acres.	Canadian Chieftain Petroleums Ltd.	2,860.00
Portions of section 33, township 38, range 22, west of the 4th meridian—178.49 acres.	The British American Oil Company Limited	52,989.21
Section 18, township 45, range 8, west of the 4th meridian—639 acres.	Fargo Minerals Ltd.	11,666.67
Section 16 and portions of sections 21 and 22, township 45, range 9, west of the 4th meridian—1,070 acres.	Fargo Minerals Ltd.	4,181.25
Section 24 and portions of sections 13 and 23, township 45, range 9, west of the 4th meridian—1,015 acres.	Fargo Minerals Ltd.	9,088.59
Portions of section 3, township 60, range 15, west of the 5th meridian—320 acres.	Canadian Fina Oil Limited, Pan American Petroleum Corporation and Hudson's Bay Oil and Gas Company Limited	4,750.00
Portions of section 27, township 41, range 19, west of the 4th meridian—5.22 acres.	The British American Oil Company Limited	200.00
		<hr/> \$ 121,528.02

Reservations—During the fiscal year 219 reservations were issued covering an area of 10,270,667 acres and at the close of the year 723 reservations were active containing an area of 39,204,436 acres.

The revenue from reservation fees amounted to \$54,280.00, for extending reservations amounted to \$4,583,176.40 and the revenue from bonuses accepted by the Director of Mineral Rights at sales of petroleum and natural gas reservations by tender amounted to \$1,262,049.45.

Credit of not in excess of fifty per cent of the approved expenditures incurred in geophysical examination including drilling on petroleum and natural gas reservations may apply to the rental for one year of any lease or leases acquired out of the reservations and during the fiscal year under review rentals of \$3,871,263.47 were satisfied from such expenditures.

Crown Reserve Drilling Reservations—During the fiscal year 135 drilling reservations were issued covering an area of 1,010,427 acres and at the close of the year 164 were active containing an area of 1,262,137 acres.

The revenue from drilling reservation fees amounted to \$33,750.00, from rentals \$642,434.36 and the revenue from accepted offers at sales of Crown reserve drilling reservations amounted to \$12,190,927.02.

Credit may be granted for expenditures incurred in drilling a well on a drilling reservation and applied in satisfaction of the first year's rental. During the fiscal year rental on leases acquired out of the reservations of \$126,078.00 were satisfied by credit.

Natural Gas Licences—During the fiscal year 29 natural gas licences covering an area of 460,811 acres were issued and at the close of the year 22 licences were active containing an area of 396,970 acres. The revenue from fees was \$7,500.00 and from rentals was \$38,966.30. Credit may be granted for expenditures incurred in drilling a well on a natural gas licence and applied in satisfaction of the first year's rental. During the fiscal year rentals on leases acquired out of the licences of \$46,259.07 were satisfied by credit.

The natural gas licence regulations and the crown reserve natural gas licence regulations were amended in June, 1958. Because of the increased size of some of the spacing units for natural gas wells an amendment provided that when a spacing unit is only partially contained in lands comprised in a licence, the licensee with the prior consent of the Director may drill a well in the remaining part of the spacing unit and in that event the drilling of the well shall be deemed to be in lands comprised in the licence. An amendment increased the maximum area that may be acquired under lease from ten sections, allowing one further section for each additional thousand feet drilled determining the presence of natural gas.

Crown Reserve Natural Gas Licences—During the fiscal year ten Crown reserve natural gas licences covering an area of 235,486 acres were issued. At the close of the year fourteen licences were active, containing an area of 324,126 acres. The revenue from fees was \$2,500.00, from rentals \$26,651.05 and the revenue from accepted offers at sales of Crown reserve natural gas licences amounted to \$1,436,660.16. Credit may be granted for expenditures incurred in drilling a well on a Crown reserve natural gas licence and applied in satisfaction of the first year's rental. During the fiscal year rentals on leases acquired out of the licences of \$12,636.57 were satisfied by credit.

Natural Gas Leases—During the fiscal year 51 natural gas leases were issued covering 338,882 acres, and at the close of the fiscal year a total of 392 leases were in existence comprising an area of 1,763,723 acres. Forty-one of the leases were granted out of natural gas licences or Crown reserve natural gas licences and permit the recovery of natural gas from one or more zones specified in the lease. One lease authorizing the recovery of natural gas from the Glauconitic Sandstone zone, was issued, being considered essential in the operation of a natural gas utility and the remaining nine leases authorizing the recovery of natural gas from the Viking, Glauconitic Sandstone and Nisku-Leduc zones were issued comprising the balances of spacing units to permit natural gas wells that were capable of commercial production to be operated at full production allowables.

The annual rental of a natural gas lease is thirty-three and one-third cents an acre and while an adequate market or a market in which the lessee may participate is not available, the annual rental is reduced to ten cents an acre. The revenue from fees was \$490.00 and from rental \$352,506.59.

COAL

In the fiscal year, 22 leases were issued containing 3,427 acres, being made up of new and renewal and second renewal leases. There are now 482 active leases comprising 147,495 acres. There were two road allowance coal mining leases issued and there are now 144 active. The revenue received from fees was \$130.00 and from lease rentals \$60,520.61.

Crown royalties collected during the fiscal year were \$99,675.81 and the following tonnage of coal, subject to royalty was mined:

	Tons
Coal Leases	981,597
Coal Lands and Mineral Sales	207,735
TOTAL	1,189,332

The reduction of the annual rental to twenty-five cents an acre of coal mining leases other than leases of road allowances has been extended for a further five year period. This reduction

does not apply to a lease, other than a renewal lease, issued on or after April 1st, 1954.

QUARRYING

During the fiscal year twelve quarrying leases comprising a total of 4,436 acres were issued, three for marl, five for bentonite, three for clay and one for limestone.

Extraction of 949,883 tons of limestone and shale, 21,826 cubic yards of clay, 30 tons of bentonite and 81 tons of sandstone from Crown leases was reported and at the close of the fiscal year 65 quarrying leases containing an area of 12,679 acres were active.

BITUMINOUS SANDS

During the fiscal year five bituminous sands leases, comprising a total of 137,997 acres were issued, and at the close of the year seventeen leases were active containing an area of 238,096 acres. Sixteen bituminous sands prospecting permits were issued during the year. There were 78 permits active at the close of the year.

QUARTZ

During the fiscal year 324 claims were recorded. Seventy-one existing claims were continued for a further year. The claim in the Drumheller district for the recovery of bentonite was one of those continued.

PLACER

During the fiscal year 28 placer claims were recorded and 41 were renewed for another year. There were 338.053 ounces of gold and 34.33 ounces of silver recovered at two gravel plants.

SODIUM CHLORIDE (Common Salt)

During the fiscal year the plant near Lindberg operated and reported extraction of 37,319 tons, an increase of 2,361 tons over the previous year.

SULPHUR

The sulphur plants at Jumping Pound and Turner Valley produced 42,668 short tons during 1958, an increase of 3,068 tons over the previous year. The Redwater plant produced 1,732 tons, a decrease of 760 tons from the previous year. The plant at Pincher Creek produced 77,926 tons, an increase of 19,312 tons over the previous year. The total production of sulphur in Alberta for 1958 was 122,326 tons, an increase of 21,620 tons over the previous year.

IRON PROSPECTING PERMITS AND LEASES

During the fiscal year the two active iron prospecting permits were cancelled. Two leases were issued containing 442 acres.

MISCELLANEOUS LEASES

A special mineral lease was issued to The British American Oil Company Limited covering 126 acres in the north east quarter of section 33, township 38, range 22, west of the 4th meridian at an annual rental of \$630.00. The lease comprises the plant site of the Nevis gas processing plant.

SODIUM SULPHATE PROSPECTING PERMITS

A sodium sulphate prospecting permit comprising 5,120 acres in township 36, range 7, west of the 4th meridian was issued.

MINERAL SALES

During the fiscal year ten notifications were issued pursuant to section 26 of The Mines and Minerals Act. These are known as mineral sales and are acquired at a nominal consideration of \$1.00. Section 26 provides a means whereby minerals in roadways may be returned to the adjacent owner.

WELL LICENCES

There were 1,772 well licences issued during the fiscal year for the drilling of oil and gas wells, structure test holes, injection wells and water wells.

DRILLING STATISTICS

The drilling and production of petroleum and natural gas wells in the Province are administered by the Oil and Gas Conservation Board, 603 - 6th Avenue South West, Calgary, Alberta, and particulars as to drilling activity, production and statistical data are included in weekly, monthly and annual reports issued by the Board.

GEOPHYSICAL AND GEOLOGICAL EXPLORATION

A person desiring to undertake geophysical or subsurface geological exploration must obtain a license from the Department. The applicant before the issue of the license must furnish a cash deposit to the Provincial Treasurer in the sum of \$1,000.00 to insure that operations are conducted in accordance with The Mines and Minerals Act and the regulations governing geophysical exploration. During the fiscal year 146 licenses were issued and they will expire on the 31st of March following, unless renewed.

The regulations governing operations by seismic, gravimetric, magnetic, electrical, geochemical, test drilling or other method which may be used for the purpose of exploring the subsurface require the operator to obtain an annual permit to operate geophysical equipment and a fee of \$25.00 is required for each permit. During the fiscal year eight such permits were issued and 67 renewed.

There are four investigators and each is allocated an area of the Province and he inspects crews in his area. When it is represented to the Department that a crew has interfered with the right of a person the matter is investigated and in the event that damage or other interference has resulted an investigator endeavours to assist the person affected and the crew in arriving at a settlement.

The geophysical regulations were revised in January, 1959.

UNIT OPERATION OF MINERALS

During the fiscal year four agreements pursuant to Part IX of The Mines and Minerals Act were entered into for unit operation of petroleum and natural gas properties. One agreement pertained to the Cadotte zone in the Pouce Coupe Area in 26,054 acres in townships 79 and 80, ranges 12 and 13, west of the 6th meridian. One agreement pertained to the Devonian formation in nine sections of land in the Okotoks Area in township 20, ranges 28 and 29, west of the 4th meridian. One agreement pertained to the Devonian formation in twenty-two sections of land in the Okotoks Area in township 21, ranges 28 and 29, west of the 4th meridian. One agreement pertained to the Viking sand in the Bentley Area in townships 39 and 40, range 28, west of the 4th meridian and in township 40, ranges 1 and 2, west of the 5th meridian.

The first three units pursuant to The Turner Valley Unit Operations Act were established during the fiscal year.

The first three units involving Crown lands were established pursuant to section 73 of The Oil and Gas Conservation Act. This section deals with the compulsory pooling of tracts within a spacing unit. The three units pertain to the gas in the Crossfield formation in the Calgary Area.

In order to permit operators of petroleum and natural gas properties to comply with schemes directed or approved by the Oil and Gas Conservation Board, 41 agreements were made permitting the performance of the schemes. One agreement permitted the injection of gas into a part of the Woodbend Reef pool in the Windfall Area with respect to the Windfall Pilot Cycling Project. One agreement permitted the injection of water for pressure maintenance purposes into the Viking formation of the Hamilton Lake Field. One agreement permitted the injection of a mineral substance or water for pressure maintenance purposes into the Cardium formation of the Pembina Field. One agreement permitted the injection of water for pressure maintenance purposes into the Cardium formation of the Rocky Mountain House Field. One agreement permitted the injection of gas for pressure maintenance purposes into the Cardium formation of the Pembina Field. Fourteen agreements authorized the return of salt water produced with petroleum to subsurface formations in the Acheson East, Battle, Bellshill Lake, Cessford, Fenn-Big Valley, Hespero, Joarcam, Leduc-Woodbend, Sturgeon

Lake South, Thompson Lake and Turner Valley fields. Twenty-two agreements permitted the injection of water for pressure maintenance purposes into the Cardium formation of the Pembina Field.

STAFF

At the close of the fiscal year the Division staff numbered 55 employees and the entire staff gave splendid and faithful service throughout the year.

Mineral Tax Division

Report of the Superintendent

V. L. SCOTT

Producing area tax revenue for the fiscal year ending March 31, 1959 amounted to \$1,115,478.85, being a decrease of \$117,316.46 from the previous year's revenue of \$1,232,795.31. The tax rate for the 1958 assessment remained at eight mills.

Acreage tax received for the year 1958 was \$306,179.40 as against \$282,057.60 for the preceding year being an increase of \$24,121.80.

Provost was the only new field added to the designated producing areas for the year 1958. This is a natural gas field and was assessed as a unitized area. Assessment was made in accordance with the tract factors listed in the Unitization Agreement for the Provost Viking Gas Field.

All producing areas designated by Ministerial Order are listed below showing the number of parcels assessed, minerals assessed and the assessed value of each producing area.

Producing Area	Parcels Assessed	Principal Mineral	Assessed Value
Acheson	22	Petroleum	\$ 4,882,850.89
Bonnie Glen	20	Petroleum	12,479,806.73
Fenn-Big Valley	63	Petroleum	12,603,472.61
Joarcam	69	Petroleum	8,171,495.75
Joffre	47	Petroleum	5,655,755.61
Jumping Pound	56	Natural Gas	1,233,836.60
Leduc	276	Petroleum	31,417,167.37
Medicine Hat-Redcliff	105	Natural Gas	331,564.95
Provost	107	Natural Gas	35,531.63
Redwater	16	Petroleum	11,081,207.67
Stettler	11	Petroleum	2,864,907.95
Turner Valley	61	Petroleum and Natural Gas	4,983,728.99
Viking-Kinsella	377	Natural Gas	1,657,202.72
Westerose	5	Petroleum	4,574,889.91
Wizard Lake	6	Petroleum	9,880,009.78

In addition to producing areas designated by Ministerial Order, there are 615 parcels on which a well or mine is located. These had a total assessed value of \$27,914,558.20 with the principal minerals assessed being petroleum, natural gas, coal and salt.

Under the heading of parcels assessed are the number of items appearing on the assessment roll with each parcel relating to the area contained in a certificate of title. In determining the assessed value of a parcel, each spacing unit on which a well has been brought into production is calculated separately; consequently, several calculations may be made in arriving at the assessment for petroleum in a parcel containing minerals in a section of land.

The revenue derived from the taxation of minerals from the enactment of the statute in 1941 until March 31st, 1949 collected by the Department of Lands and Mines was \$1,921,180.47 and revenue collected by the Department of Mines and Minerals from April 1, 1949 is shown in the following tabulation:

Year	Mill Rate	Producing	Per Acre	Acreage Tax	Fees	Total
1949-50	8	\$ 452,838.16	1½¢	\$297,883.10	\$ 286.50	\$ 751,007.76
1950-51	8	526,029.61	1½¢	307,062.62	511.00	833,603.23
1951-52	8	444,293.91	1½¢	323,185.71	2,320.10	769,799.72
1952-53	8	572,671.45	1½¢	310,285.08	3,204.00	886,160.53
1953-54	8	717,352.55	1½¢	283,853.18	1,055.50	1,002,261.23
1954-55	8	1,031,913.72	1½¢	277,842.74	1,467.00	1,311,223.46
1955-56	8	1,031,802.40	1½¢	264,496.50	914.50	1,297,213.40
1956-57	8	1,070,380.73	1½¢	272,883.90	1,101.50	1,344,366.13
1957-58	8	1,232,795.31	1½¢	282,057.60	1,056.50	1,515,909.41
1958-59	8	1,115,478.85	1½¢	306,179.40	472.00	1,422,130.25

There were 944 mineral tax certificates issued during the fiscal year with revenue derived therefrom being \$472.00. A tax certificate shows the amount of current taxes and arrears payable with respect to the mineral or minerals contained in a certificate of title and anyone may obtain a certificate for a fee of fifty cents.

During the years 1945 to 1954 inclusive, approximately 2,000 parcels of minerals were acquired by the Crown in right of Alberta under sections 23 and 25 of The Mineral Taxation Act, 1945 or The Mineral Taxation Act, 1947. These acquisitions were by tax forfeiture for nonpayment of mineral tax under section 23 and by transfer to avoid taxation under section 25. At the 1958 session of the Legislature, The Mineral Titles Redemption Act was passed which came into force on April 14, 1958. Provision is made in the Act for a person whose minerals had vested in Her Majesty under The Mineral Taxation Act, 1945 or The Mineral Taxation Act, 1947, or a person on his behalf, to apply to the Superintendent of Mineral Tax on or before the 31st day of March, 1960, to recover title to the minerals.

Each application must be accompanied by a fee of \$10.00, the taxes with interest and an amount equal to the taxes that would have subsequently been imposed had the title not vested in Her Majesty. During the fiscal year 409 titles were returned to the former owners under The Mineral Titles Redemption Act.

In some instances, after the mineral titles were acquired by the Crown, the minerals were granted under lease, license, reservation, permit or other agreement for exploration and development. The statute provides that where the minerals have been granted by the Crown, the return of the title to the former owner must be delayed until the minerals are no longer under lease, licence, reservation, permit or other agreement. In these instances, the former owner is entitled to receive the moneys collected by the Crown less a deduction of an amount equal to the tax that would have been charged had title been returned.

Return of the mineral title is deferred in seventy-five cases and the amount of moneys returned to the former owners was \$187,753.14.

Pipe Line Division

Report of the Superintendent

W. RUTHERFORD

The Pipe Line Division was formed during the year ending March 31st, 1959, to carry out duties assigned under The Pipe Line Act, 1958, which came into force on the 1st day of July, 1958. During the first few months of operation of this division, staff to deal with the application of this Act was appointed and office space was allocated. During this period the duties to be performed have been drawn up and are still in the course of expanding. Two Pipe Line Inspectors have been appointed for duties involving:

1. Inspection of pipe lines.
2. Inspection of safety measures in pipe lines and installations.
3. Attendance at pressure tests on location.
4. Inspection of discontinued or abandoned pipe lines.
5. Inspection and testing of existing pipe line systems built before the coming into force of the Act.

Information has been gathered to establish a minimum code of safety in pipe lines which it is intended shall form the basis for future regulations.

During the period under report all applications for Permits which are accompanied by specifications and drawings are appraised by the division to ascertain whether the proposed pipe line complies with The Pipe Line Act, 1958 and other standards of safety. The number of applications dealt with was 190.

After a permit has been granted for a pipe line it must be tested in its final location and the test requirements are specified by the division to ensure its safety in operation. These safety requirements, though generally in accordance with standard specifications, are varied wherever necessary to take into account special circumstances. The number of test requirements prepared during this period was 251.

After completion of construction, all pipe lines except secondary lines transmitting substances other than gas are tested before putting them into operation. This test is the initial criterion for determining the safety of pipe lines and installations and is used as one of the bases for granting a licence to operate a pipe line. Wherever possible a Pipe Line Inspector attends the tests and the number of tests attended by members of the Pipe Line Division during this period was 32.

All pipe lines in the Province are subject to licencing as being safe to operate in accordance with The Pipe Line Act, 1958. There was a large number of pipe lines constructed before the coming into force of the Act, which are being checked and for which licences are being issued. Pipe lines which have been

constructed since the coming into force of the Act are also tested and licenced. Records are made of the salient features of these pipe lines and retained in this division and from these records the following table has been prepared.

Type of Pipe Line	Number of Licences Granted	Mileage of Pipe Line
Oil lines	7	131.57
Secondary lines for oil	18	23.52
Gas lines	27	526.15
Secondary lines for gas	65	607.58
Distribution lines	51	26.60
Secondary lines for water and other substances	24	30.88
	192	1,346.30

Technical Division

Report of the Superintendent of the Technical Division

J. M. NOVAK

The following report summarizes the operations of the Technical Division for the fiscal year ending March 31, 1959.

DRAUGHTING, LAND DESCRIPTIONS AND GENERAL

The series of maps covering approximately forty-eight townships for each area and on a scale of three-quarters of an inch to the mile were drawn covering the following new areas:

BELLSHILL LAKE—Townships 38 to 43, Ranges 7 to 14, West of the 4th Meridian.

HUSSAR—Townships 22 to 28, Ranges 16 to 22, West of the 4th Meridian.

KAYBOB—Townships 61 to 68, Ranges 18 to 23, West of the 5th Meridian.

POUCE COUPE—Townships 77 to 84, Ranges 7 to 13, West of the 6th Meridian.

RED EARTH—Townships 85 to 92, Ranges 6 to 11, West of the 5th Meridian.

SWAN HILLS—Townships 61 to 68, Ranges 6 to 11, West of the 5th Meridian.

SWAN HILLS NORTH—Townships 69 to 76, Ranges 6 to 11, West of the 5th Meridian.

VIKING-KINSELLA—Townships 44 to 49, Ranges 7 to 14, West of the 4th Meridian.

VIRGINIA HILLS—Townships 61 to 68, Ranges 12 to 17, West of the 5th Meridian.

WIMBORNE—Townships 29 to 36, Ranges 23 to 29, West of the 4th Meridian.

WINDFALL—Townships 53 to 60, Ranges 12 to 17, West of the 5th Meridian.

Eight new maps of the standard size 52" x 30" or 26" x 15", and on a scale of two inches to the mile, were prepared for the following fields:

JOARCAM (North Sheet)—Townships 47 to 50, Ranges 21 and 22, West of the 4th Meridian.

JOARCAM (South Sheet)—Townships 45 to 48, Ranges 19 and 20, West of the 4th Meridian.

JOFFRE (East Sheet)—Townships 37 to 40, Ranges 24 and 25, West of the 4th Meridian.

JOFFRE (West Sheet)—Townships 37 to 40, Ranges 26 and 27, West of the 4th Meridian.

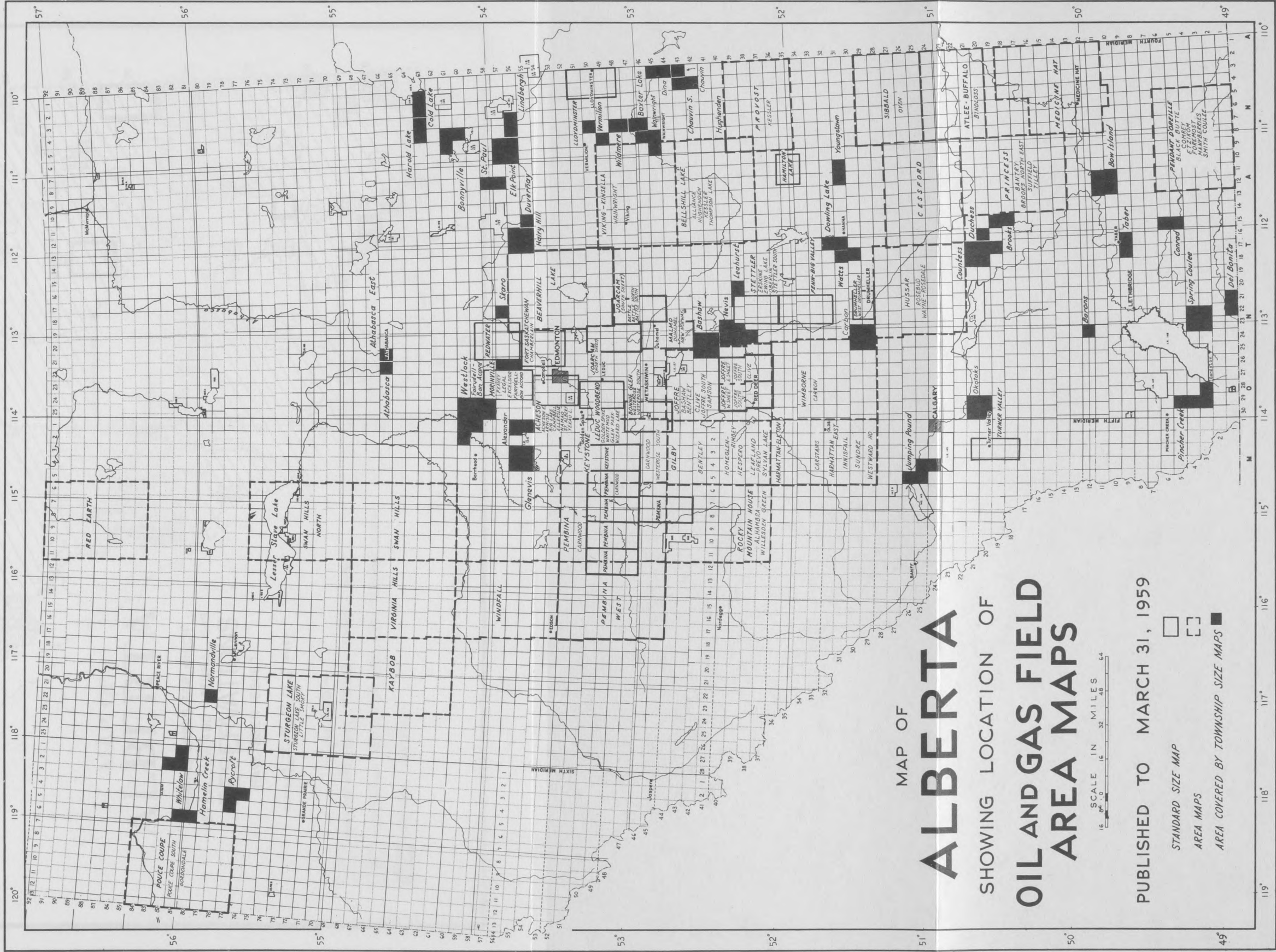
KEYSTONE—Townships 47 to 50, Ranges 3 and 4, West of the 5th Meridian.

MALMO—Townships 43 to 46, Ranges 21 and 22, West of the 4th Meridian.

PEMBINA—Townships 47 to 50, Ranges 5 and 6, West of the 5th Meridian.

PEMBINA—Townships 47 to 50, Ranges 11 and 12, West of the 5th Meridian.

Two new maps were drawn to the scale of two inches to the mile on transparent township plans covering the following fields: Carbon and Okotoks.



MAP OF ALBERTA

SHOWING LOCATION OF
OIL AND GAS FIELD
AREA MAPS

SCALE IN MILES
0 16 32 48 64

PUBLISHED TO MARCH 31, 1959

- STANDARD SIZE MAP
- AREA MAPS
- AREA COVERED BY TOWNSHIP SIZE MAPS

TERRITORIES

NORTH WEST



SASKATCHEWAN

COLUMBIA

BRITISH

UNITED STATES

MAP OF ALBERTA

SHOWING AREAS FOR WHICH
PETROLEUM AND NATURAL GAS
RESERVATIONS
HAVE BEEN ISSUED

SCALE 0 10 20 30 40 50 MILES

- LEGEND —
- RESERVATIONS ISSUED PREVIOUS TO APRIL 1, 1958
 - RESERVATIONS ISSUED FROM APRIL 1, 1958 TO MARCH 31, 1959
 - PROVINCIAL RESERVES

All new maps drawn and previously drawn are subject to showing the locations of wells as well licences are granted. When the status of a well changes, it is adjusted on the maps. The limits of fields as established by the Oil and Gas Conservation Board are also included on the maps.

A map of the Province showing the location of oil and gas field maps published to March 31, 1959 is included in this report.

A total of 3,921 maps were distributed by the Department which is a decrease of 748 from the 4,669 maps distributed in the previous year. A list of maps is available indicating the price of each map.

The number of subscribers to the Petroleum and Natural Gas Reservation Sketch Service decreased from 66 to 62 and 56,000 copies of sketches were prepared and mailed showing an increase of approximately 4,000 over last year's total.

During the year, 1,807 applications for licences to drill wells were recommended for issue by the Oil and Gas Conservation Board, which is an increase of 113 from the 1,694 applications dealt with in the previous year. The Division, upon receipt of each application, searches the ownership of Crown minerals in the spacing unit allotted to the well.

Land descriptions were prepared for all mineral dispositions, as well as descriptions for recommendations to council.

In addition to the 56,000 copies of petroleum and natural gas reservation sketches which were reproduced on the multigraph duplicator machine, 590,850 copies of other items were reproduced, representing an increase of 68,450 copies over the previous year.

The map of Alberta showing the areas covered by all petroleum and natural gas reservations to March 31, 1958 has been revised to indicate the area of reservations issued during the present year and is included in this report.

The photostat and ozalid print requirements of the Department, as in past years, continued to be supplied by the Technical Division, Department of Lands and Forests.

The "Verifax Copier" reproduced 24,520 copies from original letters and other items as required during the year under review.

The plan attached to each of the 324 applications for quartz claims and 28 placer claims was examined and, when satisfactory, plotted in the departmental township record.

RECORDS

In addition to the work completed as shown in the tables hereunder, the Records Branch of the Divisions supplied 1941 township plots to the public indicating available Crown minerals

and also plots showing the status of Crown minerals compared to 3,661 plots distributed in the previous year.

Since the coming into force of The Pipe Line Act, 1958, pipe line permits and licences were recorded and included in the township records of the Division.

***DISPOSITIONS, CANCELLATIONS AND TRANSFERS RECORDED
IN THE TOWNSHIP REGISTERS**

	1957-58	1958-59
Coal Mining Leases	64	62
Road Allowance Coal Mining Leases	20	4
Petroleum and Natural Gas Leases	5,464	5,341
Petroleum and Natural Gas Reservations	581	562
Crown Reserve Drilling Reservations	220	265
Natural Gas Licences	28	51
Natural Gas Leases	41	80
Crown Reserve Natural Gas Licences	20	19
Quarrying Leases	17	15
Notifications	22	8
Transfers	2,824	4,494
Bituminous Sands Prospecting Permits	50	26
Bituminous Sands Leases	1	5
Quartz Claims	8	324
Placer Claims	16	28
Special Mineral Leases .....	.....	1
Iron Prospecting Permits	8	2
Mineral Sales	9	10
Salt Leases	1	.....
Petroleum Leases	2	.....
Iron Leases .....	.....	2
Sodium Sulphate Permits .....	.....	1
TOTALS	9,396	11,300

*Includes issued, reinstated, divided, renewed and certificates of work.

NUMBER OF AGREEMENTS TRANSFERRED

	1957-58	1958-59
Petroleum and Natural Gas Lease	2,425	4,039
Petroleum and Natural Gas Reservation	300	308
Coal Mining Lease	5	18
Road Allowance Coal Mining Lease	1	.....
Quarrying Lease	3	6
Natural Gas Lease	12	51
Natural Gas Licence	3	3
Crown Reserve Natural Gas Licence	1	.....
Bituminous Sands Lease	1	.....
Bituminous Sands Prospecting Permit	28	28
Crown Reserve Drilling Reservation	29	37
Geophysical Licence	8	.....
Geophysical Permit	7	1
Agreement Scheme	1	1
Iron Lease .....	.....	2
TOTALS	2,824	4,494

NUMBER OF DOCUMENTS FILED

Type of Document	1957-58	1958-59
Lis Pendens	1	.....
Mechanic's Lien	8	14
Discharge of Mechanic's Lien	8	10
Bank Securities .....	.....	138
Discharge of Bank Securities .....	.....	11
TOTALS	17	173

NEW FILES OPENED AND CANCELLED

	Opened 1957-58	Cancelled 1957-58	Opened 1958-59	Cancelled 1958-59
Lease, Reservation, Permit, etc.	4,461	2,054	4,744	2,699
Company	95	3	125	.....
Coal Royalty	29	30	7	34
General	184	4	180	5
Alienated	23	.....	29	.....
Well Deposit	37	.....	47	163
Unit	5	1	5	2
Structure Test	9	.....	9	.....
Water Well	25	.....	22	.....
Petroleum and Natural Gas Royalty	767	74	1,021	6,029
Battery	110	45	127	26
Group	14	.....	11	1
Geophysical Licence	149	2	133	6
Geophysical Licence Deposit	16	6	16	10
Permit to Operate Geophysical Equipment	12	25	8	20
Pipe Line Permits	2,600	.....	319	40
Scheme	38	.....	70	.....
Power of Attorney	12	.....	11	.....
Trust Deed .....	.....	.....	19	.....
TOTALS	8,586	2,244	6,903	9,035

Seven notifications were issued during the year, of which three were issued for mineral sales, one for a coal land sale and three for exchanges of minerals.

During the ten years of the operation of the Department one hundred and ten notifications have been issued.

Accounting Division

*Report of the Administrative Accountant
and Personnel Officer*

W. E. SHILLABEER

A surplus of \$109,185,914.70 on Income Account was shown for the fiscal year ending March 31st, 1959.

Net Revenue on Income Account amounted to \$111,112,966.69.

Gross Receipts from all sources amounted to \$118,993,874.43.

Expenditure on Income Account for the year amounted to \$1,927,051.99. Particulars of expenditure may be found in Statement "C".

As at March 31st, 1959 there were 35,764 Accounts Receivable as compared with 34,425 as at March 31st, 1958. The number of active accounts as at March 31st, 1959 is made up as follows:

	No. of Accounts
Petroleum and Natural Gas Leases, Rental	29,337
Petroleum and Natural Gas Leases, Royalty	1,810
Petroleum and Natural Gas Reservations	764
Petroleum and Natural Gas Drilling Reservations	164
Natural Gas Licences	23
Natural Gas Leases	397
Crown Reserve Natural Gas Licences	12
Coal Leases, Rental	576
Coal Leases, Royalty	95
Registration of Assignment Tax	267
Mineral Tax (Producing Area)	2,116
Mining Leases (Miscellaneous)	203
	<hr/>
	35,764

There were 3,200 accounts cancelled or closed and 4,539 accounts opened.

INDEX TO STATEMENT

- A—Statement of Receipts from all sources
- B—Statement of Receipts—Income Account
- C—Statement of Expenditure by Appropriation and Character
- D—Statement of Net Receipts by Divisions
- E—Statement of Receipts—School Minerals
- F—Statement of Receipts and Expenditure
- G—Statement of Provincial Minerals Revenue by Fiscal Years received by the Province for the period April 1st, 1949 to March 31st, 1959
- H—Statement of School Minerals Revenue by Fiscal Years received by the Province for the period April 1st, 1949 to March 31st, 1959

Statement "A"

STATEMENT OF RECEIPTS FROM ALL SOURCES

From April 1st, 1958 to March 31st, 1959

	Gross Receipts	Refunds	Net Receipts
Income Account	\$111,171,414.31	\$ 58,447.62	\$111,112,966.69
Transferred Collections	1,024.72	.....	1,024.72
Suspense (Unapplied receipts carried forward, subject to refund)	7,821,435.40	5,754,948.97	2,066,486.43
	<u>\$118,993,874.43</u>	<u>\$5,813,396.59</u>	<u>\$113,180,477.84</u>

Statement "B"

STATEMENT OF RECEIPTS—INCOME ACCOUNT

From April 1st, 1958 to March 31st, 1959

INCOME ACCOUNT:

	Gross Receipts	Refunds	Net Revenue
PROVINCIAL MINERALS:			
Coal Fees, Rentals, etc.	\$ 58,522.60	\$ 115.00	\$ 58,407.60
Coal Royalty	95,187.48	.....	95,187.48
Coal Mines Act Sundry Revenue	2,509.90	5.40	2,504.50
Petroleum and Natural Gas Fees, Rentals, etc.	28,130,568.33	17,638.03	28,112,930.30
Petroleum and Natural Gas Royalty....	23,526,330.14	24,181.76	23,502,148.38
Crown Reserve Sales	52,617,146.15	.....	52,617,146.15
Mining Miscellaneous	569,247.79	4,794.64	564,453.15
SCHOOL MINERALS:			
Coal Fees, Rentals, etc.	2,263.01	20.00	2,243.01
Coal Royalty	4,488.33	.....	4,488.33
Petroleum and Natural Gas Fees, Rentals, etc.	1,722,536.74	1,520.00	1,721,016.74
Petroleum and Natural Gas Royalty..	1,949,028.06	4,670.67	1,944,357.39
Crown Reserve Sales	992,806.31	.....	992,806.31
Mining Miscellaneous	4,040.97	.....	4,040.97
MINERAL TAXATION ACT:			
Mineral Tax	1,424,857.87	2,727.62	1,422,130.25
ADMINISTRATION SUNDRY			
REVENUE	69,563.96	2,774.50	66,789.46
MISCELLANEOUS (Casual)	2,316.67	.....	2,316.67
TOTAL INCOME ACCOUNT			
(Carried to Statement A)	<u>\$111,171,414.31</u>	<u>\$ 58,447.62</u>	<u>\$111,112,966.69</u>

Statement "C"

EXPENDITURE CLASSIFIED BY APPROPRIATIONS AND CHARACTER
FOR THE YEAR ENDED MARCH 31st, 1959
INCOME ACCOUNT

SERVICE	2002 Deputy Minister's Office	2003 Accounts Division	2004 Pipe Line Division	2005 Geological Division	2006 Mines Division	2007 Mineral Rights Division	2008 Mineral Tax Division	2009
Advertising			923.31		913.61	26,248.59		
Automobiles			35.19		2.71	158.05	80.43	
Books and Binding	603.76	18.00						
Equipment		1,644.06	532.19			306.74	168.00	
Examinations					610.50			
Freight, Express and Cartage		317.45	216.00	152.32				
Grants								
Miscellaneous Supplies and Expenses	442.32	224.07	542.71	249.60	63.33	227.40	120.09	605
Newspapers and Periodicals	360.09	15.00	3.89		2.74	37.50	15.00	
Postage					85.73			
Printing and Stationery					1,353.69			
Rates, Rentals and Insurance	80.60		89.49		190.18	35.00		
Redemption of Mineral Titles								
Repairs and Replacements	320.14	661.28	245.08		401.90	942.57	346.48	
Salaries	37,584.58	78,887.66	11,069.98	3,000.00	66,247.26	183,867.33	63,975.98	
Special Services					21.50			
Telegrams and Telephones	1,071.32	68.58	440.66		274.10	2,684.36	57.85	
Travelling Expenses	1,787.34	223.73	1,530.59		7,785.07	3,547.56	2,741.30	
TOTAL: Income Account	42,250.15	82,059.83	15,629.09	3,401.92	77,952.32	218,055.10	67,505.13	605

Conservation Board	2010 Technical Division	2011 Postage	2012 Printing, Stationery and Office Supplies	2013 Administration Gas Resources Preservation Act	2014 Right of Entry Arbitration Board	2015 Supervisory and Safety Training Program	2016 Geophysical Branch	2017 Abandonment of Mining Properties	2018 Redemption of Mineral Titles	Total
					1,932.02					26,248.59
	658.35				24.90					3,768.94
	271.86				4.80					1,581.39
										2,927.65
										610.50
										685.77
						14,500.00				14,500.00
642.29	8,264.58			5,654.80	76.96		167.84	279,625.31		901,301.30
	100.00				34.50					568.72
		10,257.94			766.88					11,110.55
			25,402.13		1,142.19					27,898.01
					247.12		2.65			645.04
									187,753.14	187,753.14
	523.93				761.00		17.10			4,219.48
	167,300.29				58,497.51		25,729.80			696,160.39
										21.50
14.30	759.60				320.18		910.06			6,601.01
	800.06				5,185.05		16,849.31			40,450.01
56.59	178,678.67	10,257.94	25,402.13	5,654.80	68,993.11	14,500.00	43,676.76	279,625.31	187,753.14	1,927,051.99

Statement "D"

STATEMENT OF NET RECEIPTS BY DIVISIONS

For the Fiscal Year Ending March 31st, 1959

INCOME ACCOUNT:

Mineral Rights Division	\$109,619,225.81
Mineral Tax Division	1,422,130.25
Mines Division	2,504.50
Miscellaneous (Administration Sundry Revenue, Sale of Salvage, etc.)	69,106.13
TRANSFERRED TO OTHER DEPARTMENTS	1,024.72
SUSPENSE (Unapplied receipts carried forward, subject to refund)	2,066,486.43
	<u>\$113,180,477.84</u>

Statement "E"

STATEMENT OF RECEIPTS—SCHOOL MINERALS

From April 1st, 1958 to March 31st, 1959

INCOME ACCOUNT:

	Receipts	Refunds	Net Revenue
Coal Fees, Rentals, etc.	\$ 2,263.01	\$ 20.00	\$ 2,243.01
Coal Royalty	4,488.33	.....	4,488.33
Petroleum and Natural Gas Fees, Rentals, etc.	1,722,536.74	1,520.00	1,721,016.74
Petroleum and Natural Gas Royalty	1,949,028.06	4,670.67	1,944,357.39
Crown Reserve Sales	992,806.31	.....	992,806.31
Mining Miscellaneous	4,040.97	.....	4,040.97
	<u>\$4,675,163.42</u>	<u>\$6,210.67</u>	<u>\$4,668,952.75</u>

Statement "F"

STATEMENT OF RECEIPTS AND EXPENDITURE

For Fiscal Year Ending March 31st, 1959

Gross Receipts	Refunds	Net Receipts	Net Revenue on Income Account	Total Expenditure From Appro- priations	Surplus on Income Account
\$118,993,874.43	\$5,813,396.59	\$113,180,477.84	\$111,112,966.69	\$1,927,051.99	\$109,185,914.70

Statement "G"

STATEMENT OF PROVINCIAL MINERALS REVENUE BY FISCAL YEARS
RECEIVED BY THE PROVINCE FOR THE PERIOD APRIL 1st, 1949
TO MARCH 31st, 1959

	1949-50	1950-51	1951-52	1952-53	1953-54	1954-55	1955-56	1956-57	1957-58	1958-59	Total
COAL											
Fees and Rentals	\$ 185,412.49	\$ 174,035.27	\$ 211,582.89	\$ 170,286.62	\$ 142,278.66	\$ 49,933.84	\$ 50,132.58	\$ 66,415.78	\$ 75,001.67	\$ 58,407.60	1,183,487.40
Royalty	600,493.96	577,667.84	394,441.24	354,123.99	268,694.28	216,147.06	201,607.49	151,790.88	102,601.90	95,187.48	2,962,756.12
Sundry Revenue	6,183.50	5,335.30	5,209.45	4,526.05	3,902.20	3,067.90	2,816.20	2,792.85	3,040.30	2,504.50	39,378.25
PETROLEUM AND NATURAL GAS											
Fees and Rentals	5,741,111.95	9,034,896.06	14,134,672.25	18,236,470.24	23,096,649.12	19,057,601.56	19,869,509.92	24,307,569.78	29,309,061.99	28,112,930.30	190,900,473.17
Royalty	3,368,918.86	4,760,569.46	10,062,772.17	12,353,945.64	17,048,688.02	18,519,831.09	26,610,868.37	34,489,488.26	30,352,487.86	23,502,148.38	181,069,718.11
Crown Reserve Sales	23,180,998.77	28,008,052.42	12,517,931.33	19,659,005.63	49,590,009.60	38,954,155.80	71,931,568.77	67,531,659.11	56,508,696.49	52,617,146.15	420,499,224.07
SALT											
Fees and Rentals	564.00	3,129.00	1,005.60	1,005.60	1,005.60	1,005.60	1,005.60	1,010.60	1,010.60	1,005.60	11,747.80
Royalty	2,024.92	9,230.96	4,895.32	6,806.71	7,063.37	7,978.06	9,868.92	10,050.54	9,859.84	10,130.02	77,908.66
QUARRYING											
Fees and Rentals	1,019.31	1,176.72	291.28	227.23	325.01	185.52	173.30	213.25	117.75	110.00	3,839.37
Royalty	29,939.08	36,486.29	27,908.36	29,309.75	38,798.28	41,181.51	39,552.17	53,590.28	45,540.05	50,194.15	392,499.92
QUARTZ											
Fees and Royalty	377.56	630.00	853.47	3,826.17	15,750.92	3,283.19	1,944.82	1,180.35	1,040.00	4,079.76	32,966.24
PLACER											
Fees and Royalty .....	.....	325.08	42.79	30.00	30.00	1,510.00	1,117.50	1,346.15	500.00	690.00	5,591.52
BITUMINOUS SANDS											
Fees, Rentals and Royalty	13,350.28	7,173.20	7,173.20	52,480.95	62,994.50	42,543.76	197,997.20	89,878.58	479,047.55	363,416.28	1,316,055.50
MINING MISCELLANEOUS											
Fees, Rentals and Royalty	218,265.08	126,786.20	299,699.45	223,672.12	191,953.44	105,279.64	185,582.37	107,109.32	204,413.10	134,827.34	1,797,588.06
MINERAL TAX											
Non-Producing Area Tax	297,883.10	307,062.62	323,185.71	310,285.08	283,853.18	277,842.74	264,496.50	272,883.90	282,057.60	306,179.40	2,925,729.83
Producing Area Tax	452,838.16	526,029.61	444,293.91	572,671.45	717,352.55	1,031,922.72	1,031,802.40	1,070,380.73	1,232,795.31	1,115,478.85	8,195,565.69
Certificate Fees	286.50	511.00	2,320.10	3,204.00	1,055.50	1,467.00	914.50	1,101.50	1,056.50	472.00	12,388.60
ADMINISTRATION SUNDRY REVENUE	21,915.60	34,734.13	61,946.42	83,735.45	90,413.82	69,268.78	51,489.41	75,902.99	67,642.46	66,789.46	623,838.52
TOTAL	<u>\$ 34,121,583.12</u>	<u>\$ 43,613,831.16</u>	<u>\$ 38,500,224.94</u>	<u>\$ 52,065,612.68</u>	<u>\$ 91,560,818.05</u>	<u>\$ 78,384,205.77</u>	<u>\$120,452,448.02</u>	<u>\$128,234,364.85</u>	<u>\$118,675,970.97</u>	<u>\$106,441,697.27</u>	<u>\$812,050,756.83</u>

Statement "H"

STATEMENT OF SCHOOL MINERALS REVENUE BY FISCAL YEARS
RECEIVED BY THE PROVINCE FOR THE PERIOD APRIL 1st, 1949
TO MARCH 31st, 1959

	1949-50	1950-51	1951-52	1952-53	1953-54	1954-55	1955-56	1956-57	1957-58	1958-59	Total
COAL											
Fees and Rentals	\$ 6,313.28	\$ 6,965.91	3,761.05	\$ 5,888.62	\$ 6,474.45	\$ 2,099.50	\$ 1,797.51	\$ 1,871.19	\$ 1,808.42	\$ 2,243.01	\$ 39,222.94
Royalty	51,074.51	45,643.83	42,969.61	25,368.52	17,874.97	14,759.80	15,232.15	13,343.74	6,621.37	4,488.33	237,376.83
PETROLEUM AND NATURAL GAS											
Fees and Rentals	514,065.59	744,745.23	1,245,877.55	1,445,874.57	1,501,344.38	1,597,125.63	1,500,750.38	1,512,245.53	1,735,009.23	1,721,016.74	13,518,054.83
Royalty	242,199.47	429,423.19	975,317.20	1,157,006.02	1,516,438.34	1,694,748.02	2,184,005.64	2,803,026.05	2,459,646.73	1,944,357.39	15,406,168.05
Crown Reserve Sales	50,449.43	1,072,579.97	693,357.64	3,868,438.03	3,646,107.46	1,059,164.00	4,143,163.73	1,519,201.38	2,133,139.64	992,806.31	19,178,407.59
BITUMINOUS SANDS											
Fees, Rentals and Royalty	1,845.00	565.00	565.00	892.05	932.10	623.20	1,184.20	1,558.12	8,618.62	3,277.25	20,060.54
MINING MISCELLANEOUS											
Fees, Rentals and Royalty .....	.....	3,896.01	3,768.15	1,008.00	23.00	350.61	734.75	853.00	717.00	763.72	12,114.24
TOTAL	<u>\$ 865,947.28</u>	<u>\$ 2,303,819.14</u>	<u>\$ 2,965,616.20</u>	<u>\$ 6,504,475.81</u>	<u>\$ 6,689,194.70</u>	<u>\$ 4,368,870.76</u>	<u>\$7,846,868.36</u>	<u>\$ 5,852,099.01</u>	<u>\$ 6,345,561.01</u>	<u>\$ 4,668,952.75</u>	<u>\$48,411,405.02</u>

PERSONNEL

The number of employees in the Department showed an increase of five from 187 on April 1st, 1958 to 192 on March 31st, 1959.

During the same period, 31 employees left the Department, of these 7 left the city, 2 resigned to accept employment outside the government service, 2 were dismissed, 1 transferred to other departments, 2 retired and the remainder left for various other reasons.

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